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A N
A C C O U N T
OF THE
V A R I O U S S Y S T E M S
O F
M E D I C I N E,



FROM THE DAYS OF HIPOCRATES,
TO THE PRESENT TIME:

COLLECTED FROM THE BEST

LATIN, FRENCH AND ENGLISH AUTHORS,

PARTICULARLY

From the Works of JOHN BROWN, M.D.
LECTURER ON MEDICINE, AND PRESIDENT OF THE ROYAL MEDICAL
SOCIETY, IN EDINBURGH, &c.

By FRANCIS CARTER, M.D.

VOL. I.

L O N D O N:
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P R E F A C E.

THE nature of this work, it is presumed, will be a just apology for adding to the number of Medical books, being to lay before the English reader, an account of the various and principal theories of Medicine, collected from the best **LATIN, FRENCH and ENGLISH Authors.**

The very important doctrines lately published, being what in a great measure excited to the undertaking, further support such an opinion; for, the English reader to be deprived of such knowledge would certainly be a great misfortune.

—The work alluded to, is that of **DOCTOR BROWN**, first published in **I. Vol. Octavo**, in **1780**. A second Edition of which appeared in **1784**, in **II. Vols.** both Editions in **LATIN**; intituled **ELEMENTA MEDICINAE.**—

This learned Author has taken a most

extensive view of the medical art, enriched it with one great, and several subordinate propositions, which have intirely overturned the doctrine of the Schools ; reduced all diseases to two forms only, viz. one originating from too great an application of the exciting powers, the other arising from a deficient application of the same, which he has done with a degree of judgment, and force of reasoning, that has hitherto proved unanswerable.

Amongst the details of different theories, that of spasm has not been given.

This doctrine first advanced by HOFFMAN, and lately extended to the explanation of so many of the phænomena of diseases, is so extensively applied in DOCTOR CULLEN'S FIRST LINES of the Practice of Physic, to which the reader is referred, as to render an abridgement incompatible with this work, and is so fully confuted in the account of the new system in the same, as to obviate the necessity of such a detail.

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The account given of DOCTOR BROWN'S propositions, in this undertaking, and the doctrines naturally arising therefrom, are so full, as may it is hoped, enable not only the medical world to comprehend with clearness the new principles of Medicine, but also others, who wish to know the conditions on which they depend, and point out the proper mode of treating diseases, as founded on the same; The great utility of which, the compiler of this work, during several years extensive practice, particularly in diseases which owe their existence to weakness, has most evidently experienced; and accounting for the phænomena of life, health, and disease, on principles, which like a superior power, overturn every false system, and establish Medicine on the most solid basis.

The difficulty found in giving the sense of DOCTOR BROWN'S system, has been considerable, arising from the nature of the doctrine, and other evident causes connected

nected therewith. Should therefore the language appear stiff or not run so smooth as that of former systems, it is hoped, it will be apologized for.

How far the compiler may have succeeded in his undertaking, must be left to the candor of the judicious, one thing he can faithfully say,

Quæ potuit fecit.

LONDON,
JUNE 7, 1788. }

FRANCIS CARTER.

✂ The use of the asterisks found interspersed in this undertaking, will appear in a future publication.

T H E
V A R I O U S S Y S T E M S
O F
M E D I C I N E.

THE first medical author of note was Hippocrates ; he was born about 400 years before Christ, and was the first systematic writer ; he gained a very high reputation chiefly by his exact observations of the most minute circumstances of diseases, and the care with which he gives the detail of what preceded them ; the symptoms with which they were attended ; what afforded relief ; and what exasperated the disorder. His aphorisms, which are made up of physical and practical axioms, were long held incontestible. He excelled in prognostics, diagnostics, and a knowledge of symptoms. The doctrine of Hippocrates is so much interwoven with some of the Systems hereafter to be related, as to render a further account of it unnecessary

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here ;

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here ; and the defects and errors contained in it, are so occasionally treated of in some of the same as they may have appeared to the author of each, as to render an account of them here equally so, and more particularly, as under whatever form or appearance they may be found, or whatever errors they have been brought to support, which appear to be many, the whole, it is presumed, will be found perfectly confuted when we come to explain the *Brunonian Doctrine*, and to relate the System of a great *Medical Author*, whose works will be long had in remembrance, and whose discoveries are the happiness of the present age.

Asclepiades, of Laodicea, was at the head of a sect who called in question the Hippocratic doctrine ; neglected experience, and supposed the force of reason alone sufficient to establish the principles of medicine ; they consider nothing but the proximate causes of diseases, which they reduce to three, the relaxation of the solids, their density, and a mixed state, consequently

frequently they admit but three general indications, from which they never swerve in practice ; to relax the dense parts, to brace the relaxed parts, and in the mixed state, to combine one with the other. This simple and abridged mode of practising medicine, caused those physicians to be known by the name of Methodists.

They thought themselves therefore not obliged to study slavishly the motions of nature, agreeable to Hippocrates. This doctrine entirely mechanic, and within the reach of every capacity, had already eclipsed that of Hippocrates, when Galen revenged the insult they had offered. He confounded the detractors ; but at the same time established a dogmatic system, founded on the four elements, the four temperaments, and the four fluids ; a system which he derived from Aristotle's philosophy, and which he wrapped up in the darkness of his dialect. The blood, the bile, the pituitous humour, and the melancholy, were regarded as the sources of

all disorders. The blood, as being hot and moist, he referred to the air, the bile, as hot and dry, had its reference to fire, the pituitous humour, as cold and moist, represented the water, and the melancholy, as dry and cold, represented the earth; from thence they distinguished four kinds of tumours, which they referred to each of these fluids, viz. The phlegmon to the blood, the erysipelas to the bile, the œdema to the pituitous humour, and the scirrhus to the melancholy. Again, they attributed the different sorts of fevers to these same fluids. They imagined the blood to produce the simple synochus, and the putrid synocha; the bile, the tertian fever double and simple, the pituitous humour, the quotidian, continued and remittent fevers, and the melancholy the quartan, quintan, and sextan fevers, &c. The chief view they had in practice, was to correct by contraries, the temperatures caused by the prædominant fluids, viz. to correct heat by cold, and cold by heat, the dry by the moist, and the moist by the dry;

dry; and whenever any substance in the animal œconomy produced effects, which had no reference to any sensible qualities they knew of in the fluids, or in the remedies, they were called by them occult.

This system supported itself a long time by means of the philosophy of Aristotle, which alone was adopted in all the schools; people endeavouring frequently (but in vain) to bring it into disrepute. But at length, a more enterprising and successful genius overturned it in the 17th century; when Van-Helmont found out the existence of a vital principle, on which depends the functions of the animal œconomy, both in the sound and morbid state: he found out the references, and connexions of the stomach and præcordial parts, with all the other parts of the body: he distinguished the affinity, which external bodies have with our organs, and which produce such different effects in every individual. In fine, he found out the influence of the physic on the moral, and of the moral on the
physic;

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physic; yet he concealed these truths under a mask, the most extravagant a disordered imagination could ever invent. He supposed in man a Being endowed with understanding, which he called *Arche*, to which he attributed the privilege of being the cause of life, death, disorders, health, motion, and sensation. He placed this *Arche* in the pylorus, from which he supposed that its orders and power extended themselves over all the other parts of the body, by means of this agent. According to him, the *Arche* was susceptible of different passions, as fear, terroure, anger, &c. according as it was affected by external bodies with which it had connexion; in a word, all the motions of the body were effects reflected from sensation, and sometimes the effects of the caprice, or bad humour of this spiritual being. The practice of this author was as extraordinary as his theory; he believed nothing of the coction of febrile matter in acute disorders; he paid no regard to crisis, except when caused by sweating.

“Sweating,

“ Sweating, says he, is the road nature
“ takes to drive off all sorts of fevers ;
“ consequently a physician ought to pro-
“ mote it, by giving nothing but sudori-
“ fics ; we ought not to wait for, or de-
“ fire a natural crisis, but endeavour to
“ prevent nature in this point : for, con-
“ tinues he, a man is not worthy to merit
“ the name of a physician, if he knows
“ not how to cure a fever in four days
“ time.”

Such ideas could not long prevail ; they were soon effaced by the discovery of the circulation of the blood. When it was known that this fluid, passing from the heart, was carried by the arteries to all parts of the body, and that from thence it returned to the heart through the veins.

The living system was considered as an hydraulic machine ; the good state, and conservation of which, depended on the liberty these fluids had to pass through all the tubes which composed it : The principle of life and health being thus established,
the

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the loss of the equilibrium, between the solids and fluids, and a disordered circulation, were looked upon as the chief causes of diseases; their attention was fixed on the too lax, or too rigid fibres; or on the contracted or too relaxed vessels; or the fluids being too thick or too thin; in a word, they considered no longer the body to be any thing but a real statica hydraulic machine, provided with all mechanical instruments, which included pullies, levers, pumps, suckers, bellows, strainers, &c.

By this system so simple, they thought themselves in a condition to lay the foundation of an everlasting theory, and invincible practice.

“ The mechanic physicians,’ says an
“ author “ flatter themselves that they
“ know and understand the circulation and
“ its laws; they know that disorders de-
“ pend on a plethora of the parts and their
“ practice tends to diminish this plethora
“ by evacuations; they are always certain,
“ that evacuations made before the ple-
“ thora is formed, would have prevented
“ it

" it. These physicians have also other re-
 " sources and props for their doctrine ;
 " they associate themselves with those
 " who have thoroughly studied all the
 " delusions of the density of fluids ; with
 " those who know their different flex-
 " ions ; and in fine they associate them-
 " selves with the Chymists, who, by their
 " analyses and decompositions, make evi-
 " dent to the touch and sight the different
 " salts wanting, or too abundant in the
 " blood ; as well as the means of destroy-
 " ing or recovering the same if difficient,
 " consequently they see (to be sure) the
 " blood composed of a certain number of
 " globules, to decompound itself and en-
 " ter into the least vessels, to be obstruct-
 " ed, and by being pressed together to be-
 " come dense. When acids are redundant
 " in the stomach or in the blood, they are
 " sure to blunt or destroy them by exhi-
 " biting a contrary salt. In fine, drink,
 " say they to their patients, such a quan-
 " tity of water to wash your blood and to
 " retard its motion, diminish its volume,
 " and relax the vessels ; take this potion

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“ to clean your stomach and intestines,
“ which are so full of filth ; leave off that
“ diet which produces such a thick and
“ viscous chyle, &c. These are the pre-
“ cepts you must submit yourselves to, to
“ avoid plethora, and hinder the density
“ of the fluids : with these rules, and this
“ way of living, you will necessarily en-
“ joy a good state of health.”

Such is the System which rendered Boerhaave so famous, by the alluring manner in which he explained his principles ;* but scarce had this doctrine been universally

* He was, says an eminent author, a man of general erudition ; and, in applying to medicine, he had carefully studied the auxiliary branches of anatomy, chemistry, and botany, so that he excelled in each. In forming a System of Physic, he seems to have studied diligently all the several writings of both ancient and modern Physicians, and without prejudice in favour of any former Systems, he endeavoured to be a candid and genuine eclectic. Possessed of an excellent systematic genius, he gave a System superior to any that had ever before appeared. As in the great extent, and seemingly perfect consistancy, of System, he appeared to comprove and refine upon every thing that had been offered be-

fally received, before the weakness perceived in the relations of the principal phænomena of the animal œconomy with

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hydraulic

fore ; and as in his lectures he explained his doctrines with great clearness and elegance ; he soon acquired a very high reputation, and his System was more generally received than any had been since the time of Galen. Dr. Boerhave's treatise of the diseases of the simple solid, has the appearance of being very clear and consistent, and was certainly considered by him as a fundamental doctrine ; but, in my apprehension, it is neither correct nor extensively applicable. Not to mention the useless, and perhaps erroneous, notions of the composition of earth and gluten ; nor his mistake respecting the structure of compound membranes ; nor his inattention to the state of the cellular texture ; all of those circumstances which render his doctrine imperfect : I shall insist only upon the whole being very little applicable to the explaining the phænomena of health or sickness.

The laxity or rigidity of the simple solid does, indeed, take place at the different periods of life, and may perhaps, upon other occasions, occur as the cause of disease ; but I presume that the state of the simple solid is, upon few occasions, either changeable or actually changed ; and that, in ninety-nine cases of an hundred, the phænomena attributed to such a change, do truly depend on the state of the living solid ; a circumstance which Doctor Boerhaave has hardly taken notice of in any part of his works. The learned Doctor Gaubius, and many others, have sufficiently pointed

hydraulic, and mechanical laws; brought over some physicians of Montpellier, to the opinion of Van Helmont and Stahl, who admitted a principle of life and action,

out the defects and imperfections of Boerhaave on this subject

After Doctor Boerhaave has considered the diseases of the solid, he in the next place attempts to explain the more simple diseases of the fluids, and there indeed he delivers a more correct doctrine of acid and alkali than had been given before: but, after all, he has done it very imperfectly. We have indeed since his time, acquired more knowledge upon the subject of digestion; and so much as to know, that a great deal more is yet necessary to enable us to understand in what manner the animal fluids are formed from the aliments taken in. And although Dr. Boerhaave has fallen into no considerable error with respect to morbid acidity in the stomach, he could not possibly be compleat upon that subject; and his notion of the effects of acidity in the mass of blood, seems to have been intirely mistaken; and is, indeed, not consistent with what he himself has delivered elsewhere. His doctrine of alkali is somewhat better founded, but is probably carried too far; and the state of alkalescency and putrefaction, as well as all the other changes which can take place in the condition of animal fluids, are particulars yet involved in great obscurity, and are therefore still subjects of dispute.

tion, independent of those laws ; but in shunning the extravagance of these philosophers, they referred this principle to the sensibility, viz. they regarded the nerves as the principles of all motion, and of a sort of sensation necessary for all the actions of life. They looked upon the sensibility as derived from certain sources of the body, and that these parts were in a continual counterbalance in health, and that a derangement of such was the principal cause of disease.

It is about 42 years since M. Bordeau begun to spread his ideas in Paris, which
he

There is another particular, in which Boerhaave's doctrine concerning fluids appears to me unsatisfactory; that is in his doctrine de Glutinoso Spontaneo. The causes which he has assigned for it are by no means probable, and the existence of it seldom to be proved. Some of the proofs adduced for the existence of the phlegma calidum, are manifestly founded on a mistake, with respect to what has been called the inflammatory crust, (See Van Swieten's Commentary, page 96 ; and the many examples given by Boerhaave of a glutinosum appearing in the human body (Aph. 75) are all of them nothing more than instances of collections or concretions, found out of the course of the circulation,

he had drained from Montpellier; he has unfolded them since, in the different works he has published. He regards the cellular tissue as one of the principal sources of action in the human frame. The innumerable vessels, the nerves, and the membranous couches, which are lost in the cellular substance, render it eminently moveable and sensible, proper for the extraordinary dilations and contractions with which it is continually agitated.— This motion, joined to the tenacity of the cellular tissue, opposes an agreeable, equal, and gradual resistance to the force of the vessels and nerves, which are as it were limited by or lost in it; and it seems that the cellular organ is sufficiently moveable and capable of resistance, and sufficiently elastic for to return the degrees of force, which it receives with more or less increase or diminution, according to circumstances. This elasticity, and these motions of the cellular organ, joined to those of the skin, and of all the fibrous and vascular system, preserves and establishes (in part) the tonic motion.

Mr.

Mr. Bordeau, adds that independant of the action of the nerves, vessels and muscles the diaphragm keeps up a perpetual and peculiar motion by its connexions and adherences. He does not confine the principle of motion to the cellular tissue and the diaphragm; he finds it again in the stomach and Intestines. See Mr. Roberts on Bordeau's Works for an extension of this doctrine.

While this System was attempted to be cleared up at Paris, M. de Haller made experiments in Germany, relative to sensibility and irritability. These experiments, tried on living animals, convinced him that certain parts of our body, which were thought to possess an exquisite sensibility, were absolutely insensible; that irritability was independent of the nerves, and that there were no irritable parts, except those which had in their composition muscular fibres.

The experimental road Haller had taken, seemed to put his opinion beyond all suspicion of error. " But this road,
" (though

“ (though the surest) says M. de Buffon, is
 “ not so nevertheless, except inasmuch as it
 “ is well directed, if it be ever so little in-
 “ direct; we arrive at barren countries
 “ where we see but very obscurely some scat-
 “ tered objects; yet we are forced to gather
 “ them together, by supposing reciprocal
 “ relations, and common properties; and
 “ as we pass and repass with pleasure on
 “ the crooked paths we have made, the
 “ road seems open, and tho’ it is termi-
 “ nated by nothing, all the world follows
 “ it, we adopt the method, and admit the
 “ consequences as principles.”—We leave
 the reader to judge if these reflections are
 in any degree justified with regard to
 Haller.

We cannot doubt but that the living
 animal contains a principle of life and
 motion: But this principle is not a spiri-
 tual or a metaphysical being; it is the
 irritability or the property which the
 animal fibre has of contracting itself when
 it is irritated. The mechanism of this
 contraction is covered with a veil, which
 cannot

cannot be penetrated by the lights of the human understanding. The faculties of the soul, and the material agents, are the causes; and although, in a natural state, each of these causes has a distinct and separate empire over the irritable parts, they may nevertheless have an indistinct influence over all the motions of the machine in a preternatural state.

It is probable that the irritability has its principle in the medullary juice, which is secreted in the brain, and which is distributed in the inward tissue of all parts by the nerves; we may presume that the mechanism of this distribution depends on the motion of respiration and the action of the heart; whence there results an alternate pressure, exercised by the blood in the veins and arteries, on the brain. This being supposed, the circulation of the blood, the action of the lungs, and the motion of the brain, are therefore the three principal sources of life; so that any one of these cannot cease to act, without destroying the animal.

Another phænomenon, which we know not how to explain, and yet it is not the less proved by observation, is the difference of connexions, or of the relations which the different passions of the soul and the divers sorts of material stimulants have with the irritable parts; a sensation which excites motions and contrary sensations in different persons. E. G. a substance shall affect violently the stomach without producing any sensible affect on the pituitary membrane, or on the conjunctiva; another which irritates the kidneys, or the bladder, in one subject, and which affects the lungs or the stomach in another, &c.

All that can be said of these phænomena is, that the nerves have different modifications, not only in all the irritable parts of the same individual, but again, in all individuals in general; whence we conceive the difference of temperaments, and of tastes; the different effects and causes of disorders, and the different manner in which remedies act.

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The particular laws of the circulation of the fluids in the capillary vessels, and in the cellular tissue, are another fundamental principle of the Physic of the human body. The discovery of the circulation of the blood, which was thought to be the most important object of the animal œconomy, was, notwithstanding, a source of errors in the theory and practice of the art; because they considered the arteries and veins as forming a continued circle, through which the fluids must necessarily pass without any obstruction or retrogradation; because they knew not that between the extremities of the arteries, and veins, there were other vessels, and a peculiar organ, through which the fluids might flow and reflow, might carry themselves into all the parts of the body, without passing by the heart; and because they did not conceive that these fluids might follow all directions possible through irritation alone, which attracts or repulses them, according to their different modifications.

There is a relation of motion and sensation established between all the parts of the body by means of the sympathetic nerves; now as these nerves form many plexus, or centres of re-union on the præcordial parts, on the stomach, on the intestines, on the womb, &c. it is not extraordinary that the inward affections, the vivid motions, delightful mirth, sudden shocks, pains, sickness, fainting, all the strong impressions of agreeable or disagreeable sensations, correspond to these parts; nor that their extraordinary motions, excited by mechanical causes which irritate them, are communicated to all the other parts of the body.

Such are therefore the references which they have observed between the præcordial parts, the stomach, the intestines, and all the other parts of the body; they have reciprocal relations, not only by means of the nerves, which excite motions and sensations, which correspond to each other; but also, by the interposition of the cellular tissue and capillary vessels, in
which

which the fluids flow and reflow, according as they are determined towards a part, or as they are the reverse; but it is always an affection of the mind, or a material agent, which produces these different phenomena, by exciting the irritability and sensibility of the parts on which these causes operate. Every organ, when it exercises its functions, is a centre, towards which the fluids are determined by the action of the nerves; in chewing, the blood is carried with a greater abundance, by means of the capillary vessels, towards the salival glands, to furnish a greater quantity of spittle; when the stomach digests, its irritability being excited, increases the heat in the region it occupies, and the fluids, which flow thither, furnish the different juices necessary for digestion. During menstruation, the action of the womb attracts the blood, which passes by excretion; during pregnancy, the fluids are equally abundant, for the same reason, in this organ, to furnish fluids for the growth of the fœtus, and its dependencies; but in all these cases

cases, I repeat it, it is always a stimulant principle which excites the irritability of the organ, in exercising its functions, and not the balance or the action and re-action of the cellular tissue of the diaphragm, and of the intestines of the lower belly, as many suppose. The affections of the mind, and the material stimulants which excite the irritability and sensibility of our organs in a sound state, become sometimes the causes of disorders (E. G.) whenever they have or acquire such modifications as excite extraordinary motions and sensations, which derange the functions, and produce disorders.

The causes, which they call Humoral, are those that affect us ofteneft; they have two principal sources; besides those which may come from without, there are others that arise in the body, sometimes in the paths of circulation, where they are retained, and sometimes out of those paths, into which they enter afterwards; but let their origin be what it will, we may look in vain to find out their character. The

Acute disorders depend generally on these causes : The violent irritation they excite in the organs of circulation hastens the course of the fluids, and produces fever ; and if the morbid cause be settled in any part, that part becomes a centre of action, towards which the fluids are determined by the same irritation ; hence arise infarction, inflammation, supuration, gangrene, &c.

In these disorders the Heterogeneous fluid is destroyed or dissipated by the progress alone of the extraordinary motion it excites, (*i. e.*) the disorder even becomes the cause or the instrument of the cure, without any help of the art, except in its moderating this motion, if it is too violent, or in augmenting, it when too weak and feeble. Thus fever, after a certain number of fits or exacerbations, changes the character of this fluid by a sort of coction, which renders it fit to be evacuated by such or such an excretory organ in a limited time ; and if it be fixed and settled in a part, the inflammation,
even

even which it excites, destroys the pernicious quality by the suppuration which it excites. Such is the path of nature by which Hippocrates governed his practice in acute fevers. In all ages there were some physicians, whom a long experience induced to bring back the vain dogmatick systems which they drained from the schools, to which alone they applied, as being the fathers of medicine, being professed observers of the operations of nature.

They were called observators or expectators : this is the manner in which M. Bordeau, paints them ; “ The physicians, who followed nature as their
 “ guide, content themselves with the exact
 “ history of each disorder, they follow and
 “ observe the path without pretending to
 “ disturb it when it runs through its
 “ periods and its degrees with precision ;
 “ they content themselves with indeavour-
 “ ing to bring it back to its natural path,
 “ when it seems to deviate from it. Thus
 “ they stick to the history of life and its
 phenomena

“ phænomena to the history of tem-
“ peraments and revolutions peculiar to
“ divers ages, and to the two sexes, with-
“ out running back to the elementary
“ principles of bodies, without trying to
“ penetrate into this inward structure,
“ without comparing the laws which the
“ human body follows in its functions,
“ with the general laws of motion, and
“ with those of mechanics.

“ This System has for its fundamental
“ principle a real fact very comfortable
“ to the patients and very advantageous
“ also for the physicians; it is beyond
“ doubt that of ten diseases, there are at
“ least two thirds which are cured of
“ themselves and enter by their natural
“ progress into the class of simple incom-
“ modities, which are used and are scat-
“ tered up and down by the motions of
“ life.

“ Medicine considered under this point
“ of view may be compared to astronomy;
“ whatever be the causes that make the

“ stars move, an astronomer observes,
 “ calculates and follows exactly the course
 “ of their motions, foretells and fixes the
 “ time of eclipses ; in the same manner
 “ an observing physician applies himself
 “ to nothing but to foresee and follow
 “ the different phases of diseases ; he con-
 “ fines himself in fixing the happy or un-
 “ happy termination, without troubling
 “ himself about what the subtle physic
 “ of the human body teaches, or pretends
 “ to teach, on the disposition of humours,
 “ on that of the small vessels ; the different
 “ modifications of chyle, blood, bile, or
 “ Lymph, &c.

“ Such was once, one of the most im-
 “ portant parts of Hippocrates’ system, and
 “ of the ancient observators, whose foot-
 “ steps he trod in, chiefly confining him-
 “ self to paint the phænomena of health,
 “ diseases and their different degrees ;
 “ these observators made so many pic-
 “ tures after nature, in describing the diffe-
 “ rent states of health, and the phænomena
 “ of diseases, whence immediately arose
 “ the

“ the famous doctrine, or lucky and un-
“ lucky, critic and noncritic days, as also
“ the tenets of coctions and final evacuati-
“ ons or crisis.

“ This manner of describing and fol-
“ lowing disorders, gave rise again to ir-
“ resistible truths, for which the different
“ ages have had more or less respect, and
“ which the famous detractors of this
“ doctrine were never able to destroy,
“ who have often renewed their attacks,
“ such as Asclepiades, Paracelsus, Van
“ Helmont, and certain moderns, who
“ were chiefly those who have been at-
“ tached, without reserve, to the mecha-
“ nical systems.

“ It was not possible to cultivate this
“ contemplative System, but by letting
“ the disorders run on of themselves,
“ without attempting to disturb them by
“ remedies; thus the physicians of this
“ sect had nothing so much at heart, as
“ not to derange nature in its operations;
“ it gives and directs the diseases, it ex-

“ cites divers accidents to rid itself of
 “ them, being the principal cause to ef-
 “ fect the coction, and determine the
 “ crisis or evacuations : These are the
 “ principal axioms of the Expectators.

“ Asclepiades called this Physic of Ex-
 “ pectation, and Meditation on Death,
 “ which was often repeated, and is now
 “ daily, without affronting the Expectant
 “ Physicians ; they think that they ought
 “ not to renounce their principle for a
 “ joke, which disturbs nobody but light
 “ and frivolous people, they may retaliate
 “ upon physicians who do not think as
 “ they do, and who seem to throw doubts
 “ upon their irresistible doctrine, as, ac-
 “ cording to the laws on which it is esta-
 “ blished, they may say that it is better
 “ to meditate on the death of patients at-
 “ tacked with a desperate disorder, than
 “ to make a disorder mortal, which would
 “ have been cured of itself, if people had
 “ not the madness to derange it, by incon-
 “ siderate manœuvres and by the hazard-
 “ ous application of an hundred remedies
 “ applied

“ applied on imaginary indications, and
“ adopted on vain and childish evidences.
“ But it is very certain that this method
“ of expectation has something very weak
“ and supercilious in it, which does not
“ well agree with the vivacity of patients
“ and assistants; besides the Expectators
“ have always been but few in number,
“ when compared to the rest of physicians,
“ especially among people naturally lively,
“ impatient and fearful; they love to be
“ the physicians of people who think,
“ who have gravity, patience, and good
“ sense; they do not attempt to deceive
“ patients by the shew of theory, and
“ importune them by the use of a thou-
“ sand drugs, more bitter often than the
“ symptoms of the disorder; they are also
“ sensibly affected to see that the little
“ pains, the superfluous aids, the quan-
“ tity of medicine, drinks, and many
“ other things which people make bad
“ use of, often cause the loss of patients,
“ which Nature, left to herself, would
“ have saved.

“ In

“ In fine, another distinguishing cha-
 “ racter of observing physicians, is the
 “ mildness with which they pay attention,
 “ as much as lies in their power, to the ap-
 “ petite, temperaments, and habits of pa-
 “ tients. This doctrine seems in this case
 “ very attractive; independent of the small
 “ number of remedies which we must
 “ make use of according to those laws,
 “ they elude the excessive rules of diet,
 “ which has made so many martyrs. As
 “ soon as a patient asks for something to
 “ eat, a physician who observes nature,
 “ does not refuse them, being certain that
 “ it is instinct and not gluttony, or some
 “ false appetite that speaks; thus Hippo-
 “ crates sometimes thickened barley cream
 “ with which he nourished his patients;
 “ Thus certain whole nations do not re-
 “ fuse patients, in the strongest disorders,
 “ even eggs, pottage, animal food, wine,
 “ &c. whereas the dogmatic physicians
 “ are a kind of tyrants by the rigorous
 “ and misunderstood diet, which they
 “ prescribe.”

The opinion of M. le Cat, concerning the fluid he calls caustic, and which may be also called the stimulant fluid, humoral principle, or heterogeneous fluid, which he supposes is the material agent of the irritability of our organs in a sound state, and which becomes, on being differently modified, the innate cause of Chronic Diseases, which affect the human frame from infancy to the very end of life; that opinion I say, threw a deal of light upon the history of disorders.

This fluid, the principles of which are transmitted from the father and mother to the child, may retain its noxious qualities from this same source even, and produce, in the different periods of life, the same disorders, to which the parents were subject; but besides this original defect, this same principle may change it's qualities by the sole progress of motion, or by foreign causes, and produce a disease peculiar to the individual.

All

All men therefore are born with a principle which may be the cause of an infinity of disorders, the same ought to be said in reality of the stimulant fluids, which become excrementitious, by the action of the solids; so that if this fluid is driven out in proportion as it is vitiated, the health is not altered; but if it be retained, it will produce various disorders, according to the character it has acquired, or qualities communicated to it, and according to it's particular affinity to such or such a part; we may presume also that the climate, manner of living, the affections of the mind, and chiefly the changes of the fluids peculiar to each age, and to each individual, gives to the fluid we are speaking of different qualities, which constitute the different temperaments, and from whence arise the disorders peculiar to children, to manhood, old age, and to different nations. The humoral principle when become heterogeneous is therefore that leaven; this morbid humour, that affects our system and deranges the functions of the animal œconomy in so many different

different manners. Sometimes this principle has no fixed focus, it is carried sometimes one way sometimes another; from whence arise disagreeable sensations, indetermin'd incommodities, vague pains, and symptoms, which are sometimes violent, but do not continue, but often vanish at the moment they disturb the most: at other times the same principle fixes on one particular part, and exercises such ravages as it is capable of; now in this case the life of the patient is more or less in danger, according as the part affected is more or less essential to life. Must an external ulcer also are a fistula to be regarded as a favour from nature, in cases where the morbidic principle should threaten the head, lungs, liver, stomach, kidneys, bladder, &c? and how many patients would not be subject to the apoplexy, suffocating catarrh, asthma, nephretic, cholic, &c. if they were subject to the gout?

Hippocrates said that those who are subject to the hæmorrhoidal flux are out of danger of being troubled with a pain

in

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in the side, inflammation of the lungs, and that sort of eating ulcer called phagedenic, that they are not exposed to tumors, nor tubercles, which from the resemblance they bear to parched peas, are called thermenthes; that they are not attacked with herpes, * with leprosy, or such kind of disorders; that notwithstanding if the hæmorrhoidal flux be stopped unseasonably these

* From *ἐπρω* to spread or creep. These disorders are apt to creep on and spread about in the skin. Dr. Cullen places this genus of disease, in the class locales, and order dialyses. These ulcers in the skin, are divided by some into five species.

1st. The simple. These consist of single pustules, of a yellowish white colour, and sharp pointed: they are inflamed about their basis, and are naturally dry; these burn, itch, and smart a day or two, and then disappear.

2d. The tetter, ring-worm, or serpigo. These are the same in appearance as the first, only that they run in heaps; they more difficultly pass away; for they contain more corrosive matter; their smarting and itching is more violent; they eat sometimes through the skin, and spread considerably; they neither form matter nor come to digestion.

3d. and 4th. Shingles, or zona aurea, &c. Dr. Cullen makes this *i. e.* Herpes zoster, synonymous with

these different disorders will soon after appear again; and that the same may be said of certain fistulous ulcers in the fundament, which prevent those disorders the cure of which may cause them to arise;

his Erysipelas phlyctænodes. It is sometimes accompanied with inflammation and fever. This kind appears in large clusters on the neck, breast, loins, hips, or thighs; the heads are white and watery, and are succeeded by a small round scab, resembling millet seed, whence the name herpes miliaris; and now the disorder is still more grievous. In these cases the ill-habit of body being first attended to, it must be remembered that the external applications must be mild. Internally the treatment may be as in the erysipelas.

The chief indication is to take off the irritability of the system; which is best done by a proper use of the cort. Peruv. The prognostic of death from its surrounding the body is false. These two kinds were called by the ancients vermis repens, vermis formica miliaris: Celsus calls them ignis sacer; and Wiseman calls them ambulatoria.

5th. Herpes-exedens, also called nome, noli me tangere ulcus depascens, herpes depascens; and Celsus calls ignis sacer. According to Dr. Cullen it is of the species of inflammation, which he calls erythematous. It resembles an ulcerous erysipelas; its humour is the most corrosive of any of the species: it corrodes down the

arise; phenomena of this sort are daily observed. (a case) A man after the suppression of an hæmorrhoidal flux was attacked with so violent a cholic that a
volvulus

fleshy parts, and separates it into scales: when it disappears, it leaves hard tumors behind it, on the parts that were ulcerated.

Mr. Bell, in his Treatise on Ulcers, places the *tinea* and the *herpes*, as varieties in his species of ulcer, which he denominates cutaneous. He further observes that the cutaneous ulcer may, in all its varieties, be included in the four following; viz. 1. The *herpes farinosus*, which includes what some call the dry tetter 2. *Herpes pustulosus*, which includes the *crusta lactea*, and the *tinea capitis*. 3. *Herpes miliaris*; of this variety is the ulcerous eruption called the ring-worm. 4. *Herpes excedens*; this includes the ulcers called *depascent*, and *phagedenic*.

The *Herpes farinosus* is the most simple kind. It appears on any part of the body; most frequently on the face, neck, arms, or wrists; it comes out in broadish spots, which consist of very small red pimples; these are attended with a troublesome itching; they soon fall off in the form of a white powder, which resembles fine bran; they leave the skin perfectly sound, but are apt to return in the form of a red efflorescence, fall off, and renew as before.

volvulus was much dreaded; having removed the disease, the breast was harrassed, and pus spit up, the hæmorrhoidal flux was again brought on, and the patient cured.

Another man had a long time a trifling running of puriform matter from the rectum, the suppression of which brought on an inflammation of the lower belly, which terminated in a deposition of puriform matter in the side of the anus. These observations prove manifestly that a morbid principle lodg'd about the rectum, whether it produces an hæmorrhoidal periodic

The *herpes pustulosus* occurs most frequently in children; generally attacks the face, and behind the ears; often other parts of the head also, but rarely elsewhere. It appears in the form of pustules, which are originally separate and distinct, but afterwards run together in clusters. At first they seem to contain nothing but a thin watery scum, which afterwards turns yellow, and exuding over the whole surface of the part affected, at last dries into a thick crust or scab; when this falls off, the skin below frequently appears entire, with only a slight degree of redness on the surface; but on some occasions, when the matter hath probably been more acrid, upon the scab falling off, the skin is found gently excoriated. vid. Achores.

odic flux or a simple flow of purulent matter, may remove to another part, and produce disorders more or less severe, according to the parts on which it falls. In the same manner it is observed, that the hypochondriac affection, the mania, the epilepsy, and many other disorders, disappear by re-establishing either the return of an hæmorrhoidal flux, or a flowing of purulent matter by the fundament.

Chronic disorders present daily such examples of a metastases of the heterogeneous principle, which is carried indiscriminately from the head to the feet, and vice versâ, from the right side to the left, or from

The *herpes miliaris* generally appears in clusters, though sometimes in distant circles of very minute pimples.

These are at first perfectly separate, and contain only a clear lymph, which, in the course of the disease, is excreted upon the surface, and there forms into small distinct scales; these at last fall off, and leave a considerable degree of inflammation below, that still continue to exude fresh matter, which likewise forms into cakes, and so falls off. The itching in this sort of ulcer, is always very troublesome, and the matter

from the left to the right, from the interior to the exterior, or the reverse. These metastases follow no other laws but those of irritation, which attract or repulse the humours, by producing changes in the oscillations of the capillary vessels, or of the cellular tissue. The most part of the disorders, of which we are speaking, have intermissions, paroxysms, and periodical returns, which prove that their cause is dissipated, and that they are successively re-produced, whenever in reality the humoral principle is contaminated to

discharged from the pimples is so tough and viscid, that every thing applied to the part adheres so as to occasion much trouble and uneasiness to the patient on its being removed. The whole body is subject to this disorder, but it most frequently appears on the loins, breast, perineum, scrotum, and groins.

The *herpes exedens* discovers itself on any part of the body, but mostly about the loins, where it sometimes spreads to such a degree as to extend quite round the waist. At first it usually appears in the form of several small ulcerations, collected into large spots of different sizes, and of various figures, which are always more or less of an erysipelatous, like inflammation. These ulcerations discharge large quantities of a thin, sharp, serous matter, which sometimes forms into small

a certain degree, in which case it irritates violently the part it affects; but the motion it excites dissipates it, E. G, fever removes the cause, which produced it; this is also evident in acute disorders, and the hypochondriac affection, in the asthma and gout, &c. each paroxysm of which

crusts that in a short time fall off; but most frequently the discharge is so thin and acrid, as to spread along the neighbouring parts, and there to produce the same kind of sores. Though these excoriations or ulcers, do not in general proceed further than the true skin, yet sometimes the discharge is so very penetrating and corrosive, as to destroy the skin, the cellular membrane, and, on some occasions, the muscles themselves.

Dr. George Fordyce speaks of an instance of this disease, under the name of *herpes sapiens*, and says, it arises upon the head in small ulcers, covered with a brown moist crust, and shining, but similar to venereal ulcers, (*which see at the latter end of this work.*)

In the cure of these various cuticular diseases it hath been generally believed to be unsafe, and even dangerous to proceed in any other way, than by correcting the original disorder of the fluids, which was supposed to produce them. It may occasionally happen that some disorder in the general habit is attendant on any of these ulcerous complaints, and that a regard thereto may be required; but in the greatest number of instances, they

which is a depuratory motion, or a critical affection of the diseased organ, by which it throws off the heterogeneous matter, which irritates it ; and this natural effort is

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renewed

are more certainly and more speedily removed by the use of local remedies merely. In many diseases of the skin, antimonials are frequently given with advantage ; but their efficacy seems principally to depend upon their producing a determination to the skin, and keeping up a free discharge of the matter of perspiration ; which from various causes is long retained on the surface of the body, and thereby becomes acrid ; and doubtless is a frequent cause of disordered affections in this part.

Accordingly, all such remedies are more or less effectual, as they are more or less powerful in keeping up a free perspiration. This is further evident by observing, that a due use of the warm bath, is as efficacious in these cases, as the use of antimonials, and other medicines, supposed to carry off morbid particles through the skin. In the treatment of every herpetic disorder, the first and principal circumstance to be attended to, is, that not only the parts affected, but even the whole surface of the body, be kept clean and perspirable as possible ; to this end the frequent use of warm bathing, and of frequent gentle frictions, with clean linen cloaths (in the dry sorts of these complaints) are singularly serviceable. In the milder instances, the following externals generally suffice. 1. The aq. calcis si. usually

renewed every time the humoral principle is depraved by the progress of the motion of the solids, or by any other habitual cause.

In fine the chronic diseases which depend on the innate cause we are speaking of

is all that is required in *herpes farinosus*. 2. The solutions of lead in vegetable acid, is also very effectual; the following is a useful general form. R. sac. Saturn. $\frac{1}{2}$ an oz. acet. acerim. 4 oz. aq. font. dist. 2 lb. m. This may be applied in the form of cataplasm, mixed with bread, or by means of soft rags dipped into it, and laid directly on the parts. In some particular, and more inveterate cases, the following is sometimes to be preferred, viz. R. Merc. cor. A. gr. x. aq. font. dist. lb. i. m. This is very efficacious as an embrocation in any of these disorders. In the more obstinate instances of this complaint, the greatest care is required that perspiration is duly supported, viz. warm diluent drinks frequently taken, as well as the use of the warm bath. The ant. crud. ppt. to 2 drachms in the day, if mixt with a little g. guac. is an admirable assistant to the discharge through the skin, and contributes further aid by its efficacy in unloading the bowels. In the more vigorous and plethoric habits, cooling laxatives are peculiarly beneficial; issues are sometimes necessary in the more inveterate sorts of *herpes*. In the *herpes exedens*, a degree of inflammation often attends

of, are dissipated successively in the different periods of life, some continue a long time, others less; sometimes they succeed one another till death, by changing the character alone, and at other times, health is not altered by the heterogeneous principle for a long course of years, but the critical motion, by which it is expelled, whenever it is vitiated, is not less known

F 2 from

that requires attention; here the saturnine applications, above all others, check its progress, and at length totally remove it. But if, as it sometimes happens, the herpetic, ulcer hath made its way into the muscles, the following ointment is preferable to either the saturnine solution, or that of merc. cor. a. The ungt. saturn. of the different dispensatories, is also an useful application in this last mentioned instance. But care must be taken that this ointment is not become rancid. If, notwithstanding the use of the above, the disorder is unconquerable, it may be suspected that a venereal taint, at the same time, subsists in such a patient. A slight herpetic disorder becomes obstinate by being accompanied with the itch: in such cases, attention must be had to such diseases respectively, before those of the herpetic kinds can be removed. In some instances of the *herpes exedens*, the following bolus has been used with considerable advantage; R. merc. calcin. gr. iiss. Philon. Lond. Scruple m. omn. noct. sumend,

from time to time by some slight indisposition, as a fit of a fever attended by sweating, a slight looseness, a cutaneous eruption, a more abundant flow of urine, or saliva, &c. On the other hand we have observed, that the foreign or accidental causes, influence health, not only by altering the humoral principle, or opposing it's exertions, as it happens through the abuse of non naturals, but also by introducing poisonous substances into the system, or noxious miasmas, as it happens through the communication of the venereal virus, through the bite of poisonous animals, &c.

We would take notice that it is a thing of great importance to distinguish these disorders from those which are inherent in the constitution, because in the first case it is mostly in the power of art to cure them, by removing or destroying the causes on which their existence depends.

Whereas, in the second case, such disorders cannot be eradicated, perhaps, thro' the

the progress of life; in this case specific remedies would be sought for to no purpose; none can be found, except for those disorders which depend on an acquired or foreign cause.

Mercury is the only remedy whose specific virtue, with regard to the Lues Venerea, is well ascertained; yet this remedy does not operate by thinning the fluids, by opening the vessels, or by destroying obstructions; for if it operated after this mechanical manner, it would be equally specific against most of the other chronic disorders. It does not, therefore, affect the radical cure of the venereal disease in any manner, except in determining an artificial crisis, through which the virus, which cannot be assimilated with our fluids, is expelled; thus, as in an acute disorder, they distinguish three periods, that of irritation, of coction, and of expulsion; so mercury, introduced into the body, excites an extraordinary motion, prepares the humours, which ought to be evacuated, and determines

mines them towards an excretory organ, which ought to give issue to them in a short time, if properly applied.

We are sensibly affected to see masters of the art give into the narrow views of those who pretend that the more the mercurial globules are divided, the more efficacious they are in destroying the venereal virus, because they suppose them more efficacious to open the obstructed vessels; who think that every evacuation is an obstacle to the cure of the disease, or who believe that the evacuations which they effect by choice are as salutary as those procured by mercury; who kindly indulge their patients in their liberty and taste, and who confound the disappearances of external symptoms with a radical cure. Experience should, in fine, have opened their eyes to such gross mistakes; for it shews daily that many chronic disorders, which we see with wonder suddenly attack strong and vigorous people in the bloom of life, are the result of the venereal disease, which they attacked after
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the manner I have just described; it is thus that ignorance and quackery endeavour insensibly to waste the human race.

How many patients, who have languished a long time (waiting on death) in whom some peculiar injury has been found, either in the stomach, liver, spleen, or breast, &c. would have been cured if they had undergone the treatment proper for the venereal disease; a disorder which they mistake in their patients, because a few years have elapsed since the primitive symptoms disappeared. When chronic disorders arise from an acquired or accidental cause, their cure depends on the expulsion or removal of this cause; but it is not the same with regard to those whose causes are hereditary; we are not able to drain the source by any evacuation whatever, nor to change the character by alterative remedies.

. The chymists are often mistaken in this respect, in thinking to find out sovereign remedies against those disorders,
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by the analysis of bodies, and by experiments made in the Laboratory. Their pretensions have been hitherto vain and deceitful; nevertheless, the effects of their remedies are sometimes followed by an appearance of success, because they are administered at the end of a paroxysm, or at a time when the progress of life had determined the end of the disorder, by changing the constitution of the fluids. Such occasions as those they have often taken hold of, and thus boasted of the efficacy of their remedies; but such successes do not impose on those that are well versed in the history of diseases.

Those who have referred almost all the chronic disorders to a disease of the stomach and bowels, and who have confined their practice to the evacuation of humours to destroy this pretended disease, found themselves mistaken in this respect. In many of these diseases, the repeated use of purgatives dissipates sometimes accidents which have resisted every other remedy, as in the kings evil; tetter-
worms

worms in stubborn ophthalmies, in certain affections of the head, breast, &c. yet this effect of purgatives, does not suppose that the cause of the disease was in the stomach, or in the intestines. In these cases these remedies do not destroy the principle of the disorder, they do not act but by revulsion *i. e.* determining the course of the fluids towards the lower belly, and by this means relieving the parts affected.

Their opinion is also supported on this, that the opening of cadavers, which died of old chronic diseases; present, often, marks of divers disorders in the intestines of the lower belly, such as schirrous tumors hydatides, peculiar dropfies, purulent depositions, &c. The principle of the disease might have produced these disorders, but it perhaps much oftener happens that the too repeated use of emetics, purgatives, aperitives, dissolvents, diuretics, martials, mineral waters, &c. which they prescribe, in order to attenuate and evacuate the humours; it happens,

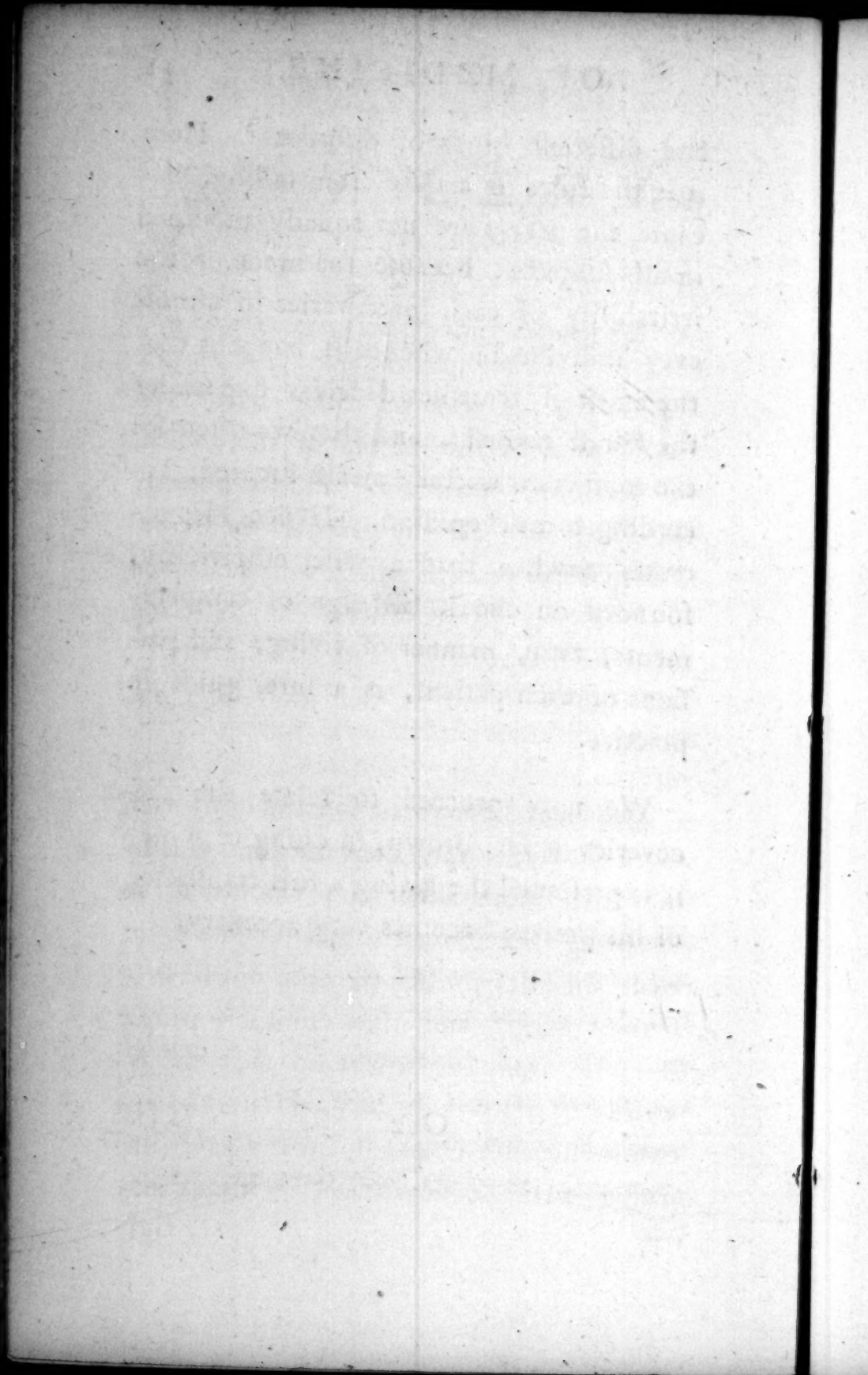
I say, very often, perhaps, that the too repeated use of these remedies determines consecutively the alteration in these parts, by irritating the intestines so frequently, and by determining the course of the fluids towards the interior parts.

In fine, whatever road they follow in treating disorders inherent in the constitution, we learn by experience that the powers of art are limited to the moderating of accidents, and only palliate the evil 'till the time when the fluids are differently determined by the progress of life; and that all the vain attempts which they make to destroy the principle of the disorder, before the time marked out by nature, may be dangerous.

All our views in this circumstance ought, therefore, to tend only to thwart the danger which may threaten the patient, and render his disorder more supportable in nature. What sagacity is there not necessary to prescribe a regimen and remedies proper for each age, each temperament,
and

and different kinds of disorders? Here it is the rules of art are often failing, because the nerves are not equally modified in all subjects; because the mode of the irritability of each part varies in almost every individual; whence it happens that the effect of remedies deceives sometimes the fairest reasoner, and that we often see the most contradictory means succeed, according to our opinion. Hence Hippocrates teaches that a wise empiricism, founded on the knowledge of temperaments, taste, manner of living, and passions of each patient, is a surer guide in practice.

We now proceed to relate the discoveries of Dr. Brown, in doing of which it is presumed the giving a full translation of his preface becomes very necessary.



T H E
P R E F A C E
T O D O C T O R B R O W N ' s
E L E M E N T S O F M E D I C I N E .

TWENTY years or more, have been spent by the Author of this work, in learning, teaching, and diligently searching into all the parts of medicine. The first five years of which were bestowed in receiving from others, in digesting what he had received, and in believing it, and laying it up as the most precious treasure.

The second five years, in explaining each more clearly, and in cultivating and polishing with more accuracy; the third, in doubting, because nothing had come to his wish; in disregarding the opinions both of famous men, and the common people likewise, and in lamenting that the salutiferous art was quite uncertain and incomprehensible; that so many ages had passed without advantage, without any
light

light of truth, so sweet to the understanding, and that so great, so precious a part of the frail and short mortal life had perished, during the last years alone; just like a traveller in an unknown country, having lost his road and wandering in the shade of night, a very obscure light, and as it were the first dawns of day, at last shone upon him.

Thirteen years from this, when he was 36 years old, he fell into his first fit of the gout; many years before he had been well, except that a few months before the disorder arrived, he kept himself to a lower diet than usual. In about 40 days the disorder finished its course, nor did it return till six years after, and then also after he had lived a few months more mean than usual. He was strong for his age, and had a good habit, except that defect of the gout, and some little debility brought on by unusual abstinence. The disorder according to the opinion of physicians was said to depend on a plethora, and too great vigour. Vegetable
food

food was ordered, and wine forbidden, which if diligently observed they promised that the disorder would never return, a whole year was spent in this manner, during which four most bitter, most painful, and very long fits happened; and the whole year was divided between lameness and torture, except fourteen days. Whence the reason of so great a disturbance, thought he, if a redundancy of blood, and too great vigour was the cause.

Why, twelve or fifteen years before, when he had more blood, and vigour, the disorder happened not, and that after a great and continued remission from food it at last came on? Why between the first fit and these latter ones, at which time he had recourse to his usual full and rich diet, so great an interval should take place, and that it should so soon return, at two different times, when he changed his food for the worse? All these he considered within himself; at last another greater solution solved this question, What does food, drink, and other sustentances

do during the first part of life? They give strength, what then? less and less, what at the decline of life? they are so far from strengthening any more, that they manifestly debilitate? Moreover, life at best, often by the interposition of a disorder, is put an end to by the same powers with which it was supported before.

As thus, disorders first, and then death comes on, not through a scarcity but through a redundancy of the necessaries of life; yet he found out that debility was the cause of the disease; and he perceived that corroborants and not debilitants were to be applied as remedies.

He thought therefore that this was to be called indirect debility. The method of strengthening answered so well for two years, that at the latter end he underwent but a very slight fit; which was not one fourth part of the four first. But no Physician will deny but that such a disorder which had returned four times in one year, would not have returned oftener
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than in this proportion, the following years, under this same method of proceeding.

The mild fit was less than the more severe, a one fourth part. Multiplying therefore, twelve by four, and by this computation, the ratio of the alleviated disorder will be as forty-eight to one. As in the first year he eat nothing (*almost*) but vegetables; so, during the latter ones, he eat animal food chiefly, and that even of the most nourishing sort. He chose the best method, he was sparing in plenty.

A young man who lived with him, and who was troubled with a grievous asthma, was cured in the same manner, and he who was daily affected, only felt one fit for the space of two years.

Afterwards, when it was often objected to him that the gout did not consist in debility, because inflammation attended it. Not doubting that this also arose from debility, he made an experiment of the

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truth

truth of it. He invited his friends to dinner, drank heartily, and in two hours the use of that foot, which before dinner he could not through pain, touch the ground with, was perfectly restored. Whence he perceived that the inflammation was also asthenic. Afterwards, he found out that the inflammations of the throat were of the same nature, both in the putrid and gangrenous cynanche, in the rheumatalgia, which is falsely called the chronic rheumatism, and in the end of a typhus, which is believed sometimes to affect the brain, provided it does affect it. As the gout affects the alimentary canal, and particularly the stomach, and often creeps on by complaints very like the dyspeptic ones. Desiring to know whether it had any connexion with the former, he perceived that these latter, as well as the former, gave way to stimulant remedies; moreover he afterwards found out that all the spasmodic disorders, arising from thence, all convulsive, almost all puerile diseases, were of the same character.

Disco-

Discovering that the convulsive and spasmodic affections were the same, even in the organ of voluntary motion, he found out also that their nature was the same, but greater in violence; as he discovered in the spasms and pains of different places of the body extrinsically, as also in the epilepsy itself, and the tetanus, and by this means he saw that a great number of affections, in which, as if they had been inflammatory, the lance was drawn without end, depended on a scarcity of blood, and other causes of debility, and that they were to be cured, not by drawing away blood or other fluids, but by repletion and restitution of strength. At the first beginning, in order to suppress the fits of the gout, being content with wine and such like good drink, he deferred the use of the more powerful remedies, which he has lately tried with wonderful success; and he has found out his so much wished for, and much despaired of secret, of repelling the fits, and of confirming health at the same time by means of opium, which has

often effected it in himself and others. This is already the third year, and it is almost spent since the time the disorder left him.

Taught by similar examples of cures, he found that fluxes of blood, called hæmorrhages, do not depend on a plethora, and vigour, but on a scarcity of blood and on debility, arising from another place; consequently he has cast them out of the number of phlogistic diseases, amongst which they were placed in the first edition, in order to put them among the asthenic in his second. For he perceived that venæsection, purging, cold, hunger, and those called sedatives were noxious; and that the stimulant method of cure alone was proper; and that wine itself and brandy, which were thought so noxious, were the most powerful in curing such disorders. After finding this out he learned, in cases where others thought there was a redundancy of blood, that there was a deficiency, and that, from a defect of this, and other stimuli, debility was the cause,

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and stimulants were the remedies, according to the magnitude of the disease. Being by this method of cure enlightened, he found out that the cause and cure of intermitting, as well as continual fevers, was the same. Thus led by the hand of nature, as it were, round the extensive world of asthenic disorders, he perceived that they all depended on the same cause, and were to be cured by the same kind of remedies, viz. stimulants, and that neither the cause nor the cure differed in any thing except magnitude. As to what regards the phlogistic diseases, whose cause nor cure was never known to any one before, he had long understood that inflammation was not the cause but the effect, and that the cause sprung from the diathesis, and not from that even, unless when very vehement.

In fine, he found by experience that the catarrh was not caused by cold, but by heat, contrary to what is thought, and other known stimuli; and is cured by the other debilitating remedies, which
being

being found out led him to consider the catarrhal symptoms in the measles, in which he perceived that, that very great man (Sydenham) who had promoted the cure only of phlogistic diseases, was a stranger to the asthenic ones, and was deceived by the Alexipharmic Physicians. And as those symptoms are the most dangerous part of the disease, therefore the real cure of them must be of great utility to the cure of the whole disorder. Thence it came to pass that the cooling, and antiphlogistic method of cure, after it was once tried, was found to be equally efficacious, as well in the measles, as in the small pox. In phlogistic diseases he has illustrated the cause, amplified the cure, enriched, and explained it, and reduced it to a sure principle.

He has divided all the common disorders into two classes, the phlogistic, or sthenic, and the asthenic or antiphlogistic. He has made and proved the former to consist in a too great, and the latter in a too deficient, excitement. The former are
cured

cured by debilitants, and the latter by stimulants, the noxious powers of both are each others remedies.

And these operate in the same manner as those do, which cause the most perfect health, only that they differ in magnitude.

The same doctrine is extended to plants. He has proposed his principle, which is illustrated and confirmed by all the parts. Thus, therefore, a conjectural art, inconsistent and false in most of its parts, has at length been reduced to a certain science, which may be called that of life.

The end of the Preface.

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ACCOUNT of Dr. BROWN'S
ELEMENTS OF MEDICINE.

MEDICINE (*according to Doctor Brown*) is the science, or knowledge of preserving sound health in animals, and teaches to check the progress of, and cure disease.

In order to constitute sound health, the actions of the body and mind must be pleasant, easy and just.

If any or all the functions be performed with trouble, difficulty, or perturbation, it is a morbid state.

Diseases that affect the whole system, are called common disorders, when limited to some particular part, then they are called *Local*.

A predisposition, or propensity to disease is such a deviation from health, as to verge to disease, and yet preserve the appearance of sound health.

The body of a living man, or of any other living animal, differs only from the same system in its dead state, in possessing a certain capability of being acted on, by certain external powers only, or by some actions peculiar to man, and internal: This property extends not only to animals, but vegetables, which properly they possess in different degrees.

The external powers are *heat*, which is very necessary for supporting life; *air* equally necessary, either, because it communicates heat to the system, or conveys away what is superabundant; this is also otherwise necessary for the system, as it assists perspiration; it being the most proper medium to be applied to the body, on account of its cleanness.

The other powers are meat, drink, the chyle, blood, and the fluids, separated
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from it; muscular motion, thought, and the affections of the brain. The property on which these powers act, is denominated *Excitability*, or a capability of being acted on by stimulants. The stimulants themselves are called exciting powers. The common effects of these exciting powers are, sense, motion, the exertion of the understanding, or deep thought, and the passions of the mind; and, I say, all the foregoing are the result or consequence of exciting powers and an excitable principle.

As some of these, viz. the external, produce their effects by impulse, evident to our senses, the other, the internal, must produce their effects in the same manner; for, as the effects of both kinds of stimuli are the same, we are to conclude that the causes are also the same, and that the stimuli of air, heat, chyle, blood, &c. must operate as the stimulus of muscular contraction, or the passions of the mind.

The effect of the exciting powers acting on the excitability he calls *excitement*; excitement then arises from the stimulus of

the exciting powers acting on the excitability, if the excitability be great, the stimulus must be small, otherwise the excitement would be dangerous and the reverse. Hence it is that the excitability of children being great, the stimulus must be small; hence also the stimulus should be applied strongly to old age, as then the excitability is decayed or lessened.

The longer the exciting powers have been applied, and the greater, the more the excitability is diminished, and that in proportion to the magnitude and continuance of the stimulus. This is proved by a temperate person converted into a drunkard: In the beginning, he can bear but little stimulus; but by time he can bear a much greater quantity, because, in the beginning, his excitability being high and undiminished, his excitement would be intolerable, if much stimulus was applied to him; but by the continuance of the stimulus, the excitability being worn, he can bear much more stimulus, and that in proportion to the diminution of the
excita-

excitability ; for the excitement is always in a ratio compounded of both, and the less the exciting powers have been applied, the excitability must be proportionably greater.

Therefore, I say, the stimulus should be proportioned to the present habit of the body ; that is, if the excitability be great, the stimulus should be proportioned first in small quantities, and then gradually encreased ; for the constant use of the stimulus lessens the excitability, which is necessary in order to bring the excitability to bear a proper proportion to the stimulus. The only circumstance necessary for health (on the other hand) is, if the excitability be decayed, the stimulus should be encreased to support a sufficient excitement. The highest degree of excitability is certain death, because then it cannot admit any stimulus, and therefore there can be no excitement.

The disparity of these factors, viz. excitability and stimulus, indicates great debility, because both should bear a certain

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tain proportion to each other; to constitute sound health, one of these causes should not be great, and the other small.

A high degree of excitability requires a long application of the stimulus; for the stimulus being long applied, if it be properly proportioned, gradually diminishes the excitability, which in this case is necessary. In youth, the excitability is very great; in old age, it is deficient,---in the first, because little or no stimulus has been applied to the excitability,---in the last, because it has been long continued, and therefore the excitability must be much worn out.

Great excitability indicates weak excitement; in this case both factors are unequal, *i. e.* the excitement is weak; a great excitement indicates moderate excitability, because the stimulus is proportioned to it in that case. The origin of death and disorder is two-fold, viz. great excitability and little excitability, because too great excitability does not
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admit of a stimulus sufficient for life, it is the same with little excitability.

No poison is sedative, as is generally imagined by physicians, all are stimulants in a greater or less degree, neither miasma, contagion, mephitic air, nor depressing passions are sedatives. This proposition may be explained two ways; first supposing all these poisons to be the most violent of stimuli, in that case, they acting on the excitability with the greatest violence, throw the system into indirect debility, and thus bring on death, or secondly, these poisons being considered as stimuli, still but too weak to act sufficiently on the excitability so as to cause such an excitement as is necessary for life. Poisons either do not constitute general *idiopathic* disorders, or if they do, they do it by their stimulating powers, like all other stimuli; that is, they must produce their effects, as other stimuli do.

As all exciting powers constantly stimulate so excitement is ended two ways
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the one is, when the excitability is worn out by the great force of the stimulus, for example, a man killed by too violent labour; in that case the stimulus of muscular motion operating too violently, brings on such a degree of excitement, as is incompatible with life, in which case he is consequently thrown into indirect debility, this when encreased to too great a degree wears out the excitability *i. e.* brings on death.

This end of excitement which arises from the excitability being worn out by too great stimulus, can be either momentary as in sleep or perpetual as in death in the first case the stimulus of muscular motion, or of the ingesta brings on a transient debility which is removed, by the subduction of the stimulus, viz. by sleep, and by digestion of the aliments. The other case is, when the powers applied operate so violently as to destroy the excitability suddenly, then death is unavoidable.

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The stimuli applied are two fold, first, when the stimulus applied, is not very violent but is long continued, then the continuance of the stimulus, tho' moderate brings on in a course of time indirect debility; because the application of the stimulus, for a long time; tho' not violent makes amends for its deficiency in magnitude. This is exemplified by old men; who, tho' not using excessive stimuli through the course of life; at last fall into direct debility, through their long use. The second is a violent stimulus, tho' applied but for a short time, brings on suddenly indirect debility of the greatest degree *i. e.* death, for example, a man thunder-struck dies from the sudden application of the most violently operating power, viz. Electric fire.

The more powerfully the stimuli are applied to the system, the greater will be the indirect debility; because in that case the excitability must be wasted in proportion to the magnitude of the exciting

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powers. It is certain that one stimulus is sufficient for bringing on any, even the greatest degree of indirect debility, but the more numerous the powers are, the greater is the degree of debility that thence results.

The nature of indirect debility is such, that powerful stimuli are necessary to bring the system to a state of health, still the stimuli applied in order to bring it back must be inferior to those, that first brought on the debility, for if they were equal to them or superior, it would be either continuing the disorder or encreasing it, therefore a necessity of lessening the stimuli takes place, which must be gradually done, according as the excitability increases, until each arrive at that proportion to each other, which is necessary for health.

The reason why the stimuli are not to be withdrawn, or suddenly lessened, is, because, if a very small stimulus was applied, in consequence of the excitability being

being too much diminished from the proceeding stimuli, an excitement necessary for the support of life, would not result from applying the exciting powers in such degree. In case of direct debility the exciting powers must be applied in a low degree and gradually encreased until the system arrives by degrees at the proper standard of excitement. This is entirely necessary, because then the excitability of the system is so much encreased, that if the exciting powers were applied, in even a moderate degree, the excitement, thence resulting would prove deleterious. But by graduating the application of the exciting powers, and thereby, in a similar proportion lessening the excitability at last, that proportion between both, so necessary for health, will result, *i. e.* proper excitement.

When the excitability is highly encreased, it is a general law in the system, that the excitement is diminished, in consequence of the diminution of the stimu-

lus, hunger, rest, depressing passions, and the subduction of the other stimuli shew this. viz. that the excitability is encreased, and the excitement proportionably lessened. Cold, or to speak more properly, the diminution of heat, sometimes seems to recover the system; this happens when the excitement is great, from a great stimulus; in that case cold being a debilitant diminishes the stimulus, and thus lessens the excitement. But the operation of cold, on a system abounding with excitability, proves destructive, because, it encreases more and more, the excitability already too abundant and lessens the little remaining stimulus.

In extreme old age, as well as extreme infancy the stimulus must be applied in very small quantity, but for very opposite reasons; in the first case, because if any considerable stimulus was applied it would utterly destroy the little excitability that remains; in the other case, because

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if a considerable stimulus was thrown into the system the excitement thence resulting would be too great, as the excitability is accumulated.

A great defect of any, or of all the stimuli, brings on death in consequence of an end being put, by that means, to excitement, the want of air is destructive, not only on account of its utility in supporting life, by respiration, but also because it is a necessary medium to be applied to the superficies of the body.

The subduction of other stimuli does not prove so suddenly destructive to the system, as the subduction of air. The symptoms that follow the subduction of proper stimuli are languor, debility, nausea, vomiting, spasm, convulsions, delirium, colliquative sweats, and indirect debility,

When the system is in a state of indirect debility, powers directly debilitating are not to be applied, because the excitement

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citement necessary for life, which has been before lessened by the excitability being highly diminished, would, by the subduction of stimuli, or by the use of directly debilitating powers, be intirely destroyed, therefore the application of highly debilitating the system, in such a case is altogether improper. When in old age, the excitability very much decreases, then the excitement is to be supported by stimulant powers; but however these stimulant powers may be applied, death must at last be the consequence, in as much as, then the highly exciting powers must be applied to sustain the excitement, and as the excitability must be lessened in proportion to the application of such powers, from this it follows, that in extreme old age, the stimuli must be applied in a moderate degree, sufficient only to sustain the excitement, and also with a view of preserving the little remaining portion of excitability in the system.

Thus direct debility is to be cured by the application of a small stimulus in the beginning

beginning; as otherwise, the excitement would be too great, the excitability being then accumulated; afterwards the stimulus is to be raised proportionally.

From these it follows, that a very small stimulus is to be applied in extreme youth, and in extreme old age. In indirect debility, the stimulus is to be first applied powerfully, and then gradually lessened for reasons before mentioned.

The cure of direct debility is more easy than the cure of the indirect, because, in the former we can continue an excitement necessary for life; by the well regulated application of stimuli, which is in our power: but the cure of the indirect is more difficult, nay, sometimes out of human power; because it is very hard to recover the excitable quality in the system when it is once lessened, and impossible, when totally worn out.

Different animals possess different degrees of excitability; it even varies in the

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same animal at different times. This arises from the different degrees of it implanted originally in each animal by the Sovereign Power, and also on the different quantity of stimuli applied to the animal: for, if a great deal of stimuli was applied, the excitability must be proportionably less; consequently, it must vary in the same animal at different times or periods of life.

Of the SEAT of EXCITABILITY.

THE excitability is seated in the nervous system and the muscular fibres. This excitable principle implanted by the creative power, is a property which is the same throughout all those parts; it is indivisible; does not consist of parts, but inheres, as a simple quality inseparable from the muscles and nerves during life. By this quality, and not by the fictitious motion of a nervous fluid, or the vibratory pulses of electricity, sensation and motion

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are effected in an instant of time, when this indivisible excitable quality is operated on by exciting powers. A stimulus, applied to a part of the nervous system or muscles, effects in an instant this excitable principle throughout, but does not pass in succession from one part to another.

However, any of the exciting powers operating on any particular part, affects the whole excitability, but more especially the part to which it is applied; nevertheless, the affection of the system in general, arising from the operation of a stimulus applied to the excitability diffused through the whole body, is by far greater than the affection of the part affected.

The excitement of the part immediately affected, and also of the remainder of the body, can be calculated, and the proportion of such excitement estimated, by comparing the magnitude of the part affected with the magnitude of the remainder of the body. This is proved by the operation of noxious powers on a part

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whence the whole system is affected ; this is also confirmed by salutary applications made to the general system, in disorders, when particular parts only appear to be affected, nevertheless, the part affected is more diseased than any other given equal part of the body. That one part of the system is or may be in a higher state of excitement than another, appears by the sweat on the forehead in consequence of hard labour, by the inflammation of particular parts, as of the membranes of the head, by obstructed perspiration which may arise from too great a tone of the extreme vessels, or a clammy sweat. Sweat can be obstructed by a phlogistic diatheses or an asthenic. In the first case, the fibre is too dense, and the excitement proportionably great ; in the latter, on account of the debility of the heart. As the operation of the exciting powers either proper, too great, or too small, is directed more to one part than another ; so the excitement in that part, must be in the same proportion, and never the reverse. For, as the exciting powers are always the same, and the excitability,

stability, in the part operated on, the same, the excitement must be in the same proportion; the same causes must always produce the same effects; therefore, the excitement is not encreased in the part, by the excitement in the whole system being lessened, or even remaining unaltered; nor is the general excitement encreased, while the excitement of the part is lessened; in this case, there is no difference, but in the magnitude of the excitement in different parts; otherwise the same cause would produce different effects. General diseases have no particular seat in the body; for they are diffused thro' the system, as the excitability which is generalis affected.

A D I G R E S S I O N.

THE system of physic established by *Astlepiades*, was deduced from the then reigning philosophy of *Epicurus*, which supposed that every thing was composed of pores and *Atoms*. He constituted three

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species of disorders, the first of laxity, the second of obstruction, the third mixed; the first he supposed may arise from two causes, viz. when the pores were too wide, tho' the atoms were sufficiently large, or when the atoms were too small, tho' the pores were of a proper size. The 2d. class he also divided into two, viz. when the atoms were too large, tho' the pores were of proper dimensions, or the atoms may be of just magnitude, but the pores too small. The third class was compounded of both. From this it appears, that he referred the cause of disorders to the solids, which has been the spring of many errors in physic.

But to return, it was observed, that general diseases have no particular seat in the body, still there is an inequality of excitement, in consequence of the stimulus operating more on one part than on the rest. Nor is one part first affected, and that affection gradually communicated to the whole system, according to the vulgar notion. Because, as soon as the excitability
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is in one part affected, it is throughout instantly affected in a similar manner, on account of its indivisibility. Besides it is impossible to conceive how one spot could be affected only, without a greater portion of the system. As in pleuritis*, it is impossible to think that the breadth of a shilling could suffer only, and that this small part should gradually produce a general affection; also, it can be proved, that every disease, which, according to physicians, from a topical, produces a universal affection, was first a general one, and that the affection of the part was subsequent to the general affection. Every inflammation is then nothing else, than a symptom following a general affection; this is fully confirmed by the general applications which alone are useful in diseases of this kind, as in the cure of pleuritis, &c. which are cured by the antiphlogistic plan. In every general disease, every topical affection, however formidable, is then to be considered as only a part of a general affection, with this difference, that the part is a little more affected than an equal part of the rest of the body

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body. Therefore, in this case, the remedies should be applied to the system in general. The contractile power of muscles is always in proportion to the excitement, this is proved by the phenomena of good and bad health, and by the operation of exciting powers, &c.

Physicians define *Mobility** to be that state of the system, in which there exists the greatest debility, together with a great propensity to motion. Such a state cannot exist; for there can be no facility of motion, without a proportional strength of the moving powers; but this strength is in proportion to the excitement, and debility is a diminished excitement; therefore there cannot be diminished and proper or
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* The diseases in which Mobility has been supposed chiefly to exist, are those commonly denominated Nervous Disorders; and females of delicate systems and strong passions, are generally remarkably affected with such diseases; as also the sedentary or studious, of both sexes.

In females it shews itself by hysterical, spasmodic, and convulsive affections, in paroxysms, called hysterical fits, These are generally preceded by a pain of the forehead,

great excitement in the system at the same time. For, it is repugnant to the laws of nature, that the moving powers should be diminished, and, notwithstanding, perform their motions with greater facility than before. We must then refer all disorders of great mobility, as convulsions, tremors, &c. to debility as a cause, and cure them by proportionably exciting powers. In order to account for this mobility, physicians fancied, that too great a quantity of the nervous fluid rushed into the

temples, or eyes, with an effusion of tears, and a dimness of sight, a dulness of the senses, an universal languor, listlessness, and anxious oppressed breathing, costiveness, and a strong stimulus to urine frequently, and the urine is voided clear as water.

An intense pain of the loins ensues, with violent shiverings, and chillness: the belly is hard and inflated; the navel is drawn inward, so as to leave a considerable cavity; a sensation is perceived, as of a ball arising from the lower belly to the hypochondres, diaphragm, and throat. A tremor and palpitation of the heart quickly succeeds with a hard, unequal, and sometimes intermitting pulse. The extremities grow cold; the fauces are straitened, and the patient seems in danger of being strangled. The face becomes generally pale,

the part, and caused this violent excitement; or they, to mend the matter, said it was the nervous power.* This *mobility* they divided into mobility with plethora, and mobility without it, &c. The truth is, that the

sometimes red and turgid with blood: the voice is lost; and the pulse is now scarcely to be perceived; so great is the stricture of the belly, as not only to prevent the discharge of the flatulences, but the admission of clysters. In some, the head and limbs are convulsed; others lie in a deep sleep, without sense or motion. Some burst into immoderate laughter, and, on recovering their speech, speak deliriously. Some are seized with violent cardialgic pains and enormous vomitings.

The paroxysm for the most part, soon goes off, with eructations, and rumbling in the belly; leaving a languor and heaviness of the whole body. Sometimes it has continued so long, that the patient has been held for dead, and even actually buried. The hysterical and hypochondriacal diseases, have been erroneously confounded; though they have several symptoms in common; the sudden attacks, loss of sense and motion, constant inclination to urine, retraction of the abdominal muscles, intense coldness of the lumbar region, scarce to be abated by the application of warm cloaths; the sensation, as of a ball, arising from the belly, a violent fixed pain confined to a small spot of the head, and the abatement of all the symptoms from the smell of burnt feathers, are distinguishing phenomena of the hysteric passion. The hypochondriacal often changes

the debility is general; but the stimulus is applied more powerfully to the part affected, than to any other part, *E. G.* in hysteria and spasms of the intestinal canal,

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into melancholy, a scurvy, a slow fever, or the morbus niger; the hysteric into epilepsy, a mortal syncope, a furor uterinus, or acute fever; wherever it proves fatal, it is by an epileptic or apoplectic fit, that the patient is carried off. On dissecting those who have died of hypochondriasis, the liver, spleen, and pancreas, are found indurated, scirrhus, or corrupted; in hysteric persons, the uterus and ovaria are chiefly affected; the latter, in particular, are often surprisingly distended.

The true hysteric passion, though violent and alarming, is not very dangerous, unless improperly treated, or when the patient is weak, and a valetudinarian. No disease, however, is more liable to be attended with epileptic symptoms; and, when produced at first, from injuries, in abortion, or in child-birth, it is apt to return, from the slightest cause affecting the nervous system. Often also, the hysterical and hypochondriacal diseases are completed together; and, in this case, prove commonly lasting, and difficult of cure.

For a further account of these disorders, see the method of distinguishing diseases, under the title Common Diagnosis, and the cure of Asthenic Diseases, &c. and particularly, the Hysteria, both mild and severe.—The two latter will be found in the second vol. of this work, and the others in this;

the debility prevails all over the frame, but a violent stimulus operates on it, as of air, or crude and indigested victuals. This debility is the consequence of a long relaxation, which is in proportion to the deficiency of excitement; but, as I said before, a facility of motion, without power, commonly called mobility, does not at all exist; for that a moving power should be diminished, and at the same time also perform motions, with more than usual promptitude and ease, is repugnant to the general laws of things.

Consequently, tremor, convulsions, and all such affections, are to be imputed to debility, as a cause, and to be removed by stimulants. Too great stimulants to a part become noxious; but the cause of spasm is not to be admitted of as depending on vigour: this action is a continued one, and deficient rather than a great one; inasmuch as it is a great contraction depending on the local stimulus of distension, or something of that nature; it consists in diminished excitement, is destitute of strength, and

is lastly removed by stimulant remedies, as will be hereafter proved.

It is to be remarked that pain proceeds from both diathesis, in all the different parts of the body, as in the head, the breast, loins, bowels, &c. arising from both kinds of disease, viz. asthenic and phlogistic; and also that inflammations are equally so, arising either from a phlogistic or asthenic diathesis. The effects of the asthenic are to diminish the functions by debilitating; nevertheless, they often exhibiting a false appearance of real inflammation, should be, with the greatest caution ascertained, and guarded against.--- Spasms are no more than contractions of muscular fibres, which, for want of due excitement, do not recover their alternating state of dilation, but always are contracted: this state arises from debility. If a proper excitement could always be preserved in the system, man would live for ever: but for two causes this cannot take place. First, because the quantity of excitability, which every animal acquires at its origin,

is gradually worn out by the force of natural stimuli, such as the blood, &c. or by the force of diseases or other exciting powers. Secondly, the asthenic disease puts an end to the excitement; because, in that case, for want of a due quantity of exciting powers, the excitability is so encreased, as to destroy life. From all this it is evident that animal life is a forced state: this is made manifest by respiration, which is an action necessary for animal life, but still is forced.

OF PREDISPOSITION.

IT is an intermediate state between good and bad health; or it is a deviation from that standard which constitutes sound health.

The same powers which constitute disease, constitute a propensity, by acting in a higher or less degree, or applied for a shorter or longer time. In either case,
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the exciting powers are the same, only operating in a less or greater degree; for they operate on the excitability in the same manner which those constituting disease do.

Before a disease comes on, a predisposition must precede it; for, a deviation from health must pass through the different degrees of predisposition, before a disease is constituted.

It may be objected to this theory, that some species of contagion assault and destroy the system so suddenly, as to leave no time for a predisposition previously to come on.

In answer to this, it may be said, that the facts related of the sudden destructive operation of the plague, are probably misrepresented; and even if they were true, the time of predisposition must exist previous to the disease, though it should not exceed a minute.

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When the contagious matter is not the chief agent in the disorder, according to the absurd notion of physicians, it is the predisposition; for if the contagious matter should be applied to a system not predisposed, a disease would not result from such an application; or if any, it will be merely local, as for example, when children in the small pox suck the breasts of their mothers or nurses, they will have a few pustules.*

In disorders of contagion, the time of predisposition will be longer or shorter, in proportion to the state of the system, and the violence of the contagious matter. The contagious matter acts like every other exciting power, either producing an increased or diminished excitement, and must be understood to operate in the same manner, and to be cured by the same means; as like effects flow from like causes.

In order to distinguish between general and local diseases, there can be no better distinguishing

distinguishing mark, than that in the former a predisposition always takes place, and in the latter none.

It is certain, however, that sometimes a general disorder may take place, without a predisposition, *i. e.* when it proceeds from a local affection. *Poisons* operating on a particular part, such as the stomach, must be considered as local at first, and affecting the whole excitability, and thereby producing a general disease. The cure is to be locally applied, if in our power, by a timely rejection or removal of the irritating matter, in case of poisons.

Of the DIAGNOSIS.

THE danger of all diseases, and their vehemence, is in direct proportion to the magnitude or deficiency of excitement; which alone makes the difference. The particular seat of disorders, which,
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in reality, is but a part of a general affection, gives rise to the different names and varieties of these disorders, viz. one part is somewhat more affected than another given equal part, tho' the disorder is general throughout the system; but this variety of its seat, is not very much attended to in the cure. The magnitude of the affection of a particular part, is not to be so much considered as the general affection. The only diagnosis of any moment is, that whereby we distinguish general diseases from local, or symptomatic ones, which last diseases, sometimes disturb the whole system, and thus put on the appearance of general disorder; the greatest help we can have, to discover if the disorder be general, is to consider if the diathesis of the patient was fitted for an asthenic, or phlogistic general disorder; if the disorder, which immediately followed such a general predisposition, is similar to the preceding diathesis; also, if the remedies used to cure the general affection, proved useful or not, viz. if the disorder is asthenic, and that debilitating remedies did harm,

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we must conclude that it is such, and the reverse.

We know that a disorder is local, by knowing that a particular part was primarily affected by some known cause, that the repetition of that cause affects the system, as often as it is applied to it; also, by the absence of a preceding diathesis in the patient, to the disorder, which the local one resembles; the absence of this diathesis, or even if it did exist, and that a local injury was applied; I say, the absence of the diathesis proves it to be a local affection.*

In order to obtain a knowledge of local disorders, anatomy is necessary, as general disorders very often leave as effects, injuries of some of the intestines, or viscera; therefore, the more general affections the patient laboured under, the more we are to suspect, that the injuries of these viscera, are the effects of these several general disorders. This will help to guide our judgment, relative to apparent local

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injuries discovered on dissection ; and incline us to suppose, that they are effects of general, and not of local diseases.

Of the PROGNOSIS.

AS predisposition to disease, or diseases themselves, consist in different degrees of asthenic or phlogistic diathesis, and as the powers which constitute either diathesis, act somewhat more on one part than on another ; therefore, the danger of the predisposition, and also of the disease, will be in proportion to the greatness of the diathesis, or the utility of the part, viz. if it be an organ necessary for life as the lungs, the brain, or its membranes, altho' the disease, all over the system, be not great, still the danger will be considerable, as a slight injury of these organs would prove fatal.—On the contrary, if the disease affecting the whole system be great, and that the part mostly affected is not very necessary for life, we are not to apprehend so dangerous consequences, as
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in the former case. But if the disorder be equally diffused, and proportionably distributed throughout the body, without one part being much affected; in that case, our prognosis may be favourable.—From the above, it appears, that peripneumony, the gout, erysipelas, and apoplexy, are often fatal diseases, because they frequently assault organs immediately essential to life,

Of the METHOD of CURE.

AS asthenic and phlogistic diseases consist in superabundant or deficient excitement, the intention of cure must be to diminish the latter, and encrease the former; until a proper medium of excitement, is brought about.

As the same powers, all of the same kind, and operating exactly after the same manner, varying only in magnitude, constitute both forms of diseases; so these diseases are removed by the same operating powers, encreased or diminished to a certain

degree contrary to that which induced the disease; in the one the excitement must be raised, in the other diminished. The remedies, in a phlogistic diathesis, are stimulating powers applied in a less degree than is necessary for health, viz. debilitants. The remedies in the asthenic are the same, applied in a greater degree than is necessary for health, viz. stimulants. These powers are to be applied more or less, as the excitement, or the affection of the part which depends on that excitement points out. Also, we should make choice of these stimulant powers, so as to apply the most powerful in order to remove the most vehement affections; but we are never to commit the cure of a vehement asthenic disease to one stimulant power only; many, nay all, are often to be applied; and in a violent phlogistic disease, venæsection alone is insufficient, altho' it is of all others the most debilitating power; because, though it may deplete the larger blood vessels, its effect will not reach the smaller, or the serous, mucous, and exhalant ones; in that case, powers that

that will more immediately empty them, must be applied, as purgatives; in like manner, in highly asthenic cases, as I said before, one stimulant is not sufficient; as tho' I give opium, and other stimulants, it will also often be necessary also to apply heat to the surface; nor are we to apply these powers to one particular spot, from a supposition that it is the seat of the disease; no the application must be to the system in general.

The reason, why more than one power should be applied for the cure of diseases, is, that the excitability may be the more fully and equably affected. It is true, that any power applied affects the excitability throughout, yet still the part, to which it is immediately applied, is more excited than other parts. If any symptom, of a well known and certain indication, is connected with others of a quite contrary indication, we are not to judge of this well known symptom by the concurrence of the other fallible symptoms, but we must judge of the concurrence by those symptoms, because the one is certain
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and the other uncertain; thus for instance, in a *Typhus**, altho' it be attended without delirium, heat, quickness of pulse, thirst, &c. yet, if there appears a real debility, we are to be guided by it in our application. This is evident in cases of *dyspepsia**, where bleeding is ordered, and vegetable diet, which prove injurious. It is true such perverse treatment may afford a temporary relief, but still it heightens the disorder afterwards. This *aphorism*, of Hippocrates' is true, viz. persons liable to belsh up acids, are not subject to pleurisy, *i. e.* those that exhibit a certain symptom of debility, are not liable to phlogistic diseases.

The converse of this *aphorism* is equally true, viz. those that are subject to inflammatory diseases, as the peripneumony*, are not liable to fall into disorders of debility. As every disease, and predisposition to disease, consists in encreased or diminished excitement, our intention of cure must be to stimulate or debilitate proportionably; not to remain indifferent spectators

spectators, and commit the whole to nature. Dr. Stahl, and many others, fancied that there existed in the body a *vis medicatrix naturæ*, viz. a provident and intelligent being, which provided for the safety of the system, prevented the approach of any matter injurious to it, and eleminated that matter, when it happened to attach itself to it. There are, it is true, desires, appetites, and loathing to certain things in the system, as a desire of rest, when the body is fatigued, a desire of victuals, when hungry, a dislike to them, when satiated; a desire of cold, when hot; and *V. versâ*. The passions of anger hatred, and mischief, will have revenge, and love, venereal gratitude, until each passion is satiated: but these appetites and desires are under no direction of reason, much less of a provident being, of which we are not conscious; they arise from a sense of pleasure or pain, more or less, operating on the body; not from a provident being in the system. These desires arise, because the body is so formed as necessarily to acquire different conformations,

mations, in consequence of different impressions, viz. that one power operating on it, will produce a different effect, to that which a different one will.

It is the sense of pleasing or painful impressions, that causes these appetites, and nothing like reason.

Thus, thirst and hunger are ardently avoided ; thus sensual desires are gratified ; in short, a blind impetuosity directs us, arising from necessity, not from any prescient or intelligent being.

If there existed in the system any thing like an intelligent being, active and provident, this being would surely prevent all diseases, and predispositions ; this being would apply all the exciting powers, with so proper an adjustment, as to prevent a deviation from the standard necessary for health.

Under its direction, the excitability would be so proportionably stimulated, as
that

that the system, after a series of years, would dissolve in consequence of a final, but gradual extinction of the excitable quality. But the matter is otherwise; few decay in that manner, without experiencing too high or too low excitement. Then there can be no provident being, or ideal, which without any indication of the impending injury, directs the helm of the system; and the blind impetus of our passions and appetites are many. We daily apply either highly exciting or highly debilitating powers to ourselves, without any notice from this intelligent being. What then is this phantom doing? Why does not she prevent diseases, and predispositions? Why does not she prevent us from making such applications? Why does not this *vis medicatrix naturæ*, prevent us from desiring strong diet, in predisposing us to, and even bringing on inflammations? Why does not she prevent us from luxury and sloth, the great sources of disorders? Are we not to prevent the effects of hunger, cold, and other debilitating powers, when applied? We surely are. Are we

not to prevent often the effects of even a benign hæmorrhagy? Certainly. What then is this vis doing? Are we not to prevent, by debilitating powers, the danger of the small pox or measles? Are we not to do the same in mania? We surely should not commit them to this phantom on the other hand, are not we by highly exciting powers to obviate the effects of a typhus, or cynanche maligna? If a powerful stimulus is necessary for preserving the health of a strong man; why should it not when he is reduced by a debilitating disease? If gout, dyspepsia, or asthenia are brought on by powers, exciting so high as to induce indirect debility, in such a case are not we to apply gentle stimulants whose utility has been proved by facts, because too violent stimulants brought on the disease? In hæmorrhagy arising from direct or indirect debility, introduced, by too free an use of exciting powers, in rheumatism arising from too high excitement, ending in indirect debility, are not we to avoid the use of debilitating remedies, and applications, which in the beginning
would

would have been of the greatest service, and apply stimulants? Is not the same to be observed in dropfy?*

*On morbid MATTER, as a cause of DISEASES.**

IF morbid matter happens to find its way into the system, we must only give it time to make its exit out again;

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* *The common Account of morbid MATTER, &c.*

MIASMA, contagion, and miasmata, as they relate to diseases, are productive of some of the febrile kinds, and of them only. They are generally floating in the atmosphere, when they are injurious to mankind; but they are not observed to act, but when they are near the sources, from whence they arise; that is near the bodies of men, from which they immediately issue, or near to some substances, which, as having been near to the bodies of men, are imbued with their effluvia; and in which substances these effluvia, are sometimes retained in an active state for a long time. It should here be remembered, that the notion of contagion properly implies a matter arising from the body of man, under disease; and that of miasma, a matter arising from other substances. Dr. Cullen remarks, that the substances imbued with the

whether it acts like every other exciting power, or preserves its specific form, we are to consider it in the light of either a stimulating or debilitating power.

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effluvia from the bodies of diseased men, may be called fomites; and that it is probable that contagions, as they arise from fomites, are more powerful than as they arise immediately from the human body. Further, that tho' the fomites are possessed of matter from the human body, yet this matter passing from the fomites, is called miasma; which requires further to be distinguished from the miasmata arising from marshes, &c. by the epithets human and marsh miasmata.

On this subject of contagion and miasma, Dr. Cullen observes as follows.

As fevers are so generally epidemic, it is probable that some matter floating in the atmosphere, and applied to the bodies of men, ought to be considered as the remote cause of fevers.

Contagions have been supposed to be of great variety; and it is possible that it may be so; but that they truly are, does not appear clearly, from any thing that we know at present.

The number of genera, and species of contagious diseases, of the class pyrexia, at present known, is not very great. They belong to the order of fevers, of exanthemata, or of profluvia.

The reason why morbid matter cannot be suddenly *eliminated* is, because it gradually ferments and converts the fluids less or more, into its own nature, therefore

Whether there be any belonging to the order of phlegmasiæ, is doubtful; and, tho' it should be supposed, it will not much increase the number of contagious pyrexia. Of the contagious exanthemata and profluvia, the number of species is nearly ascertained; and each of them is so far of a determined nature, that, tho' they have now been observed and distinguished for many ages, and in many different parts of the earth, they have been always found to retain the same general character, and to differ only in circumstances, which may be imputed to season, climate, and other external causes; or to the peculiar constitutions of the several persons affected. It is therefore probable, that, in each of these species, the contagion is of one specific nature, and that the number of contagious exanthemata, or profluvia, is hardly greater than the number of species taken notice of in our system of nosology.

While the contagious exanthemata and profluvia are thus limited, it is probable that the contagions which produce the continued fevers are not many; nay, it is not evident, that there are more than one common source of them.

It is well known, that the effluvia constantly arising from the living human body, if long retained in the same place, without being diffused in the atmosphere,

fore as it is diffused through all of them, it requires a great quantity of humours to pass off, so as to bring along with them this morbid matter, and this requires a length

acquires a singular virulence, and in that state, applied to the bodies of men, becomes the cause of a fever which is very contagious.

The late observations on jail and hospital fevers, have fully proved the existence of such a cause; and it is sufficiently obvious, that the same virulent matter may be produced in many other places. At the same time, the nature of the fevers arising, render it probable, that the virulent state of human effluvia, is the common cause of such fevers, as they differ only in a state of their symptoms, which may be imputed to the circumstances of season, climate, &c. concerning with the contagion, and modifying its force. Miasmata arise from various sources, and are of different kinds; but we know little of their variety, or of their several effects.

We know with certainty only, one species of miasma, which can be considered as the cause of fevers; and from the universality of this, it may be doubted of if there be any other,

The miasma, so universally the cause of fevers, is that which arises from marshes, or moist ground, acted upon by heat. So many observations have now been made with respect to this, in so many different regions of the earth, that there is neither any doubt of its being

length of time;—no purgatives* or evacuants can effect this, nor can it be changed in the fluids, so as to become innoxious; and even if morbid matter prevailed in the system, it operates like every other exciting power. As in asthenic, as also in phlogistic diseases, and their predispositions, I shall prove, that perspiration is suppressed, so this perspiration is to be supported, that the morbid matter, if any there be, should pass off along with it; but this does not furnish us with any new indication.

in general a cause of fevers, nor of its being very universally the cause of intermittent fevers, in all their different forms. The similarity of the climate, season, and soil, in which intermittents arise, and the similarity of the diseases, arising in different regions, concur in proving that there is one common cause of these diseases, and that this is marsh miasma.

What is the particular nature of this *miasma*, we know not; nor do we certainly know whether or not it differs in kind; but it is probable that it does not, and that it differs only in the degree of its power, or perhaps in its quality, in a given space. It remains most probable, that the remote causes of fevers, are chiefly contagions or *miasmata*, and neither of them of great variety. *Miasmata* are supposed to cause intermittents,

indication.* Cold, as I shall afterwards prove, does not prevent perspiration, as is supposed, nay it encreases it, as appears in many phlogistic diseases. Besides, cold cannot be supposed a general affection of the system acting by constriction, as is also taught; because, in that case “according to received opinions,” it does not operate immediately on the excitability, the nervous or muscular system, but on the simple solids, which are by no means excitable: and such a constriction on a part, would be a topical affection, and the general affection resulting therefrom, a symptom, which is absurd. In no case are we to direct our cure to any
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and contagions to cause continued fevers, strictly so named.

It may further be added, that both contagion and *maismata*, are of a debilitating, or sedative quality. They arise from a putrescent matter. Their production is favoured, and their power encreased, by circumstances which favour putrefaction; and they often prove putrefactive ferments, with respect to the animal fluids. Though fevers generally arise from marsh or human effluvia, and other remote causes of fevers, which have been commonly supposed, cannot with any certainty be excluded. See Cullen's First Lines, Vol. I.

of the simple solids, or fluids, which are unexcitable, but always to the parts excitable, viz. the nerves, and muscular system, as, every exciting power operates on the whole of it, not on any particular part. As in advanced life the *excitability* diminished, by the operation of the exciting powers requires such an application of them as is necessary for life, but still not so great as quickly to wear out all the *excitability*, and as in consequence of too small an application of these powers, direct debility takes place; should we not apply proportionably stimulant powers, although the too great application of them, originally occasioned the disorder. A person when young, strong, and in health, is in advanced life liable to *apoplexy*;* are we

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*The following is the common opinion, &c. of it. Apoplexy is derived from *αποπλησσω*, to strike or knock down; or *smite suddenly*; the Latins call it *attonitus morbus*. It is also called *fideratio*, *attonitus stupor*. Dr. Cullen ranks this genus of disease in the class *neuroses*, and the order *comata*. He also takes notice of nine species, besides those instances in which it is symptomatic, viz. 1st. *Apoplexia sanguinea*, with signs of an universal plethora and chiefly of fullness in the head.

to suppose, as that man when young and in high excitement, was not liable to it, that he becomes afterwards liable to it when his excitement is low? No, he should be most liable to it in the former state, (if the common opinion of *apoplexy* was true) when his excitement is very high. If in such cases of low excitement we retrench the patient's living, we add direct to indirect debility, and thus encrease the disorder
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2d. *Apoplexia serosa*, which is generally in aged and leucophlegmatic people. 3d. *Apoplexia hydrocephalica*; 4th. *Apoplexia atrabilaria*, observed in persons disposed to melancholy. 5th. *Apoplexia traumatica*; when the head is hurt by violent external force. 6th. *Apoplexia venenata*, from poisonous matters, whether externally applied, or internally taken. 7th. *Apoplexia mentalis*; from passions of the mind. 8th. *Apoplexia cataleptica*, in which the respiration is not stertorous, and though the limbs maintain any accidental position, yet they give way to external force applied to them. 9th. *Apoplexia suffocata*, which happens in case of hanging and drowning. An *Apoplexia* is a sudden privation of all sense and voluntary motion; the pulse, at the same time, being kept up, but respiration is oppressed. A deep sleep, with insensibility, and snorting, seem to be constant attendants. Dr. Cullen says, "The *apoplexy*

four-fold, and more so, if directly debilitating powers followed after stimulants immediately. In this case we should follow the tonic plan.

Heat is necessary for vegetation, growth, and the perfection of animals and vegetables, neither can they be at first formed without a due quantity of it, nor grow, or come to perfection; even their constituent particles cannot preserve their form without it: and water which constitutes

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is that disease in which the whole of the external and internal senses, and the whole of the voluntary motions, are in some degree abolished; while respiration and the action of the heart continue to be performed. To the definition of *apoplexy*, he adds, that the abolition of the powers of sense and motion, is in some degree only; meaning by this, to imply, that under the title of *apoplexy*, are comprehended those diseases, which, as differing from it in degree only, cannot, with a view either to pathology or practice, be properly distinguished from it. Such are the diseases named *carus*, *cataphora*, *coma*, and *lethargus*. Lomnius observes, that this disorder is generally ushered in by sudden and acute pains in the head, vertigo, dimness of sight, grinding the teeth during sleep, a coldness of the whole body, especially the extremities; then, as though thunder-struck, the patient falls down sometimes with shrieks; imme-

so great a part of them would be frozen, and the pores of the earth so necessary for their growth would acquire a different conformation, the air in them would be frozen to a solid. Heat, being applied to the surface of the body, stimulates it more than any other part, such as the internal, which is mostly uniform in its quantity of heat. This stimulus applied in a just quantity encreases the tone, density, or *excitement* of the muscular fibres, and consequently the diameters of the

diately after the eyes are shut, a snorting comes on, the difficulty of breathing is great, endangering suffocation, the breast ceases to heave just as if it was bound with cords; sense and voluntary motion are entirely lost.

There are different species of apoplexies, which demand our utmost attention, as the cure is very different in each, particularly the two first, the others agreeing more with the second. The first is the sanguineous *apoplexy*, in which we find a strong full pulse, a red and bloated visage, the patient's neck swelled, an oppressed loud respiration, with a little hoarseness. This species prevails amongst the robust who have much blood, loaded with crassamentum. The second is the serous *apoplexy*, in which the symptoms are, in general, like those in the former species, except that the pulse is weaker,

the muscular vessels are lessened. This diminution being always as their density and the density as their tone or excitement, therefore the diameters of the vessels on the surface where the heat is most applied are almost entirely closed, in some cases. Thus then the perspiration is suppressed by an increased stimulus: this appears evident in inflammatory diseases, as the small pox and measles, when the irritating matter is retained and perspiration suppressed, in consequence of a greater excitement on the
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the countenance pale, or at least far less ruddy, and the breathing less oppressed. The third is the spasmodic *apoplexy*; the same signs attend this as are usual in the second species, only it is sooner removed, and rarely degenerates into a palsy. The fourth is the symptomatic, such as from flatus in the stomach, the gout, &c.

The remote cause is a plethora, the antecedent cause is some great commotion of body or of mind, as from violent exercise, hard drinking, passion of the mind, &c. the immediate cause is a compression of the brain. The sanguineous hath, for a general and principal cause, an increased vital heat, the serous a defective heat, and the other species have some cause which renders the diffusion of the vital heat irregular, whence spasms, which are a mediate cause of this disorder. It should be remembered here, that the crassamentum of the

surface, than in the internal parts ; on the other hand heat, even moderate, when too long applied, or violent and of short duration, induces debility, diminishes the tone and density of the vessels, produces laxity and opens the perspiratory pores. This effect is greater on the surface, than on the internal parts, where the heat is equable. In consequence of this laxity the sweat is encreased, as in hot climates, and as in *fevers* which are attended with *colliquative* sweats ; in the confluent small pox, which

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blood is the attractor of the vital fire, the nerves conduct it, and the brain is its principal reservoir : various causes may determine this fire in greater quantities to a particular part, than what is necessary for the due discharge of its functions, or it may be directed with a more than ordinary speed and force there ; and in proportion to the quantity, or the velocity of it, in the apoplectic strokes, the part to which it is directed will suffer, both as to suddenness and danger : should it be determined thus to the heart and arteries, circulation would be stopped, and death the immediate consequence ; but directed to the seat of sensation, and the origin of all voluntary motion, an *Apoplexy* is produced. The serous *apoplexy* hath for its general and its principal cause too, a defect of vital heat ; whence the redundancy of serum, to which this species is usually

is occasioned not by heat opening the pores, but by the indirect debility, induced by heat on the heart, and arteries, which being communicated to the extreme vessels they consequently transmit the perspirable matter in the greatest abundance. Over and above what I have said of cold, if cold by constriction brought on a general disease, heat would remove it but heat instead of removing it encreases it. Heat in phlogistic diseases proves injurious. As heat removes the cold in diseases, should
not

attributed: farther, the crassamentum not being able to attract the degree of heat requisite for the due distension of the cells of the cellular membrane, and the contraction of the fibres, occurring circumstances easily deprive particular parts of their heat, and cause it to rush with violence on some other; and a suddenly deficient distribution of the vital fluid produces similar effects, in some instances, to an excessive one. And, as to all other species which indeed are but symptomatic, it is as the morbid cause, hath an influence on the heat with respect to its distribution, so that it is productive of this disease.

Dr. Cullen thinks that the proximate cause is, in general, what ever interrupts the motion of the nervous power, whether from the brain or to it. Of *apoplexies* from internal causes, he thinks the motion of the ner-

not then the effects of cold be removed, viz. the disorder? Yes, surely or an effect must be supposed to survive its cause.

On LENTOR, &c.

IF *Lentor* was the common cause of diseases, our common intention of cure should be to inspissate or attenuate the fluids, and all our remedies should be whatever did the one or the other; but if the doctrine

vous power is interrupted by some compression on the origin of the nerves; and this compression is occasioned by an accumulation of blood in the veins of the head. In *apoplexies* from external causes, the motion of the nervous power is interrupted by directly destroying its mobility; as when mephitic air, fumes from charcoal, &c. are admitted to the nerves.

From an attention to the symptoms of an *apoplexy*, and the appearances observed on dissecting those to whom it had proved fatal, the brain is most probably its seat. Wepfer, in his histories of those subjects, observes, that the vessels in their brains were often ruptured, or very turgid: at other times the ventricles of the brain were filled with a watery humour; or a portion of serum, &c. was found betwixt the brain and its membranes.

doctrine laid down, and method of cure, which see, be true, it must be allowed that this opinion is taken upon false grounds.

What diseases are they which proceed from spessitude of the blood, as a cause which can be cured by mere water, which, was it the cause of such disorders, ought to remove all diseases, depending upon it as a cause.

Whereas there is no such blood found; for, in inflammatory diseases, where a

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Old men, tho' indolent, those who indulge in gluttony or drunkenness, and short-necked people, are the most subject to *apoplexy*,

This disorder should be distinguished in its species, and also from those other maladies to which it bears a resemblance. The sanguine *apoplexy* must be distinguished from the serous and the symptomatic, and each from one another; and *apoplexies* must be distinguished from a lethargy, an epilepsy, hysteric, suffocations, a palsy, a carus. a catalepsis, a syncope.

The danger seems to be chiefly proportioned to the difficulty of respiration; if it is tolerably easy, and the patient can swallow, there is good hope; but if respiration is very difficult, or intermittent, and what is

buffy coat is found, which was supposed to prove the thickness of the blood, still in fact it is more fluid, in which case you may conceive of its fluidity from its penetrating into vessels, which could not otherwise admit it; and how can venesection, purging of any kind, or abstinence, or rest of body or mind, which have been recommended, &c. tend to attenuate the blood? Or how can too much blood, or high living, strong drink one time, and sloth another time, or excess of labour, or

given the patient to drink, returns immediately by the nose, a recovery is hardly to be effected.

Those who have been attacked with any kind of *apoplexy*, are subject to relapses, each of which are more dangerous than the preceding; to prevent which due regard should be had to all that can conduce thereto, that it may be avoided; suppers, hot rooms, violent exercise, particularly in the sun, going to bed late, long sleeps, continuing in the cold, especially if the feet are subject to be so, and whatever is suspected to dispose to this disorder must be watched against.

In order to the cure, in case of the sanguine species, immediately uncover the patients head, raise it up as high as possible, and give him the advantage of fresh air.

or too great exertion of the mental faculty, acting as noxious exciting powers ; I say, how can they be supposed to condense and inspissate the blood ?

Again, what disease can arise from thin watery blood ? Is it the dropsy ? No ; the dropsy is consequent to a well known diathesis, it comes on by degrees, like every other universal disease, and passing thro' the intermediate stages of predisposition, ascends at last to that magnitude which

Q 2 constitutes

If it can conveniently be done, bleed, ad deliquium, to reduce the vital heat ; ten or sixteen ounces may be taken away immediately, and the same quantity may be repeated in an hour or more, according as the pulse will admit. Some assert an extraordinary efficacy from opening the temporal artery during the fit. Dr. Cullen observes, that, when an attack of *apoplexy* is immediately threatened, blood-letting is certainly the remedy to be depended on, and should be taken largely, if it can be done from the jugular vein, or the temporal artery. But, when no threatening turgescence appears, the obviating plethora is best effected by leeches applied to the temples, or scarifications of the hind head : and these are more safe than general bleedings. When there are manifest symptoms of a plethoric state in the vessels of the head, a seton, or pea issue, near the head, may be very useful in obviating the turgescence of the blood.

constitutes disease. The same powers which constitute predisposition, constitute disease of both species, viz. powers either exciting too much or not sufficiently. How can these powers, which are said to cure one species of disease, by attenuating the blood, by the same manner of operation, bring on the other? And how can the usual remedies of this class of diseases, viz. the same powers that constitute the phlogistic class, bring about health, by inspissating the fluids? In the one case
they

Lenient clysters, with a table spoonful of common salt in each, should be given as speedily, as possible, and repeated every three or four hours until proper means can be administered by the mouth.

Cooling medicines should be given as soon as they can be swallowed, let the first be a brisk but cooling purge with nitre.

In the fit some assert that a handful of common salt, dissolved in a pint of water, if poured down the patients throat, will speedily recover him: the trial is easy, and nothing to be feared in case of failure.

Blisters may be applied all over the feet. Dr. Cullen prefers the application of them to the head.

they do not prove noxious by inspissation, but by encreasing excitement; nor do they prove a remedy in the other case by attenuating, but by diminishing excitement.

If without injury of the living solids, without any fault in the excitement, blood too thin or too thick, was the origin of diseases, this redundancy or want of water alone would be the cause of every affection.

But water, however largely taken into a sound system, passes spontaneously thro' all

Keep the patient still and calm, and let his diet be aqueous, and such as affords the least nourishment.

In the serous kind, bleeding is rarely to be admitted, but purging with the tinct. sac. (or such like) will be absolutely necessary, as soon as the patient can be made to swallow, and repeat the dose every third day.

Raise his head high, as already advised, and try to pour down the solution of common salt, above hinted at.

Wrap the feet warm in hot flannels. Clysters may be repeated twice a day, and made as directed in the sanguine *apoplexy*.

Dr. George Fordyce thinks that the compression producing apoplexy, seldom or never arises from the

all the excretories of the body, without any disease being the consequence. No man in health, after drinking water in the greatest plenty, falls into a dropfy, nor ever will, nor is any disease produced by taking in water in a small quantity; indeed whatever is necessary is desired, by the impression of thirst.

Besides, without water, and even without fluids, furnished with water, the deficiency or want of it is often borne a long time, without great inconvenience.

Some

serious part of the blood being extravasated, or, &c. but adds, whether blood or serum be the cause, the same methods must be pursued for relief; and besides bleeding, to relieve the brain, he urges the advantage of purging, which he says diminishes the circulation from the brain as well as from the intestines. The more active purgatives he recommends, and to repeat them so as to keep up the secretion that way.

Apply blisters to the shoulders, and on the fleshy parts of the legs.

Volatile Spirits, with valerian, aromatics, and ferrugineous medicines, are to be directed. There, as indeed all stimulants, are least hazardous and most useful, when the fit is not present.

Some people almost constantly thro' custom drink water, others scarce ever drink any, without any great detriment to either; nor after an abundance, or deficiency of water, do diseases attack the system, except by a previous application of stimulating or debilitating powers, which, in other circumstances, constitute universal diseases; and which hurt by encreasing or diminishing excitement. The spissitude or tenuity of the fluids is then an imaginary source of disease. Show me one disease

The diet must be light, but cordial and nourishing. In gross habits mustard-seed may be swallowed whole two or three times a day, to the quantity of a table spoonful each dose. Horse-radish may be eaten freely.

In the spasmodic, or other symptomatic kinds of *apoplexies*, an attention to the general habit of body, and the nature of the disease attending, will lead most directly to the cure.

Dr. Flemmyng recommends trepanning as a powerful assistant in the cure of apoplexies, by taking off a degree of pressure from the brain. See his observations on this subject, in the Med. Mus. vol. II. page, 300, &c.

disease which can arise from the state of the blood being altered, without the usual noxious powers being applied, in the usual manner, that produces disease.

In fine, Sydenham's indication of cure, by drawing blood, purging, cooling, and proceeding on the antiphlogistic plan, is very suitable to the first class of diseases, being alone applied in the humoral pathology and method of cure, and then neglected or used with indifference, and applied with inattention, it proves the vanity and falsity of that method of cure, which again proves the cause to be equally vain and false.

Lastly, that doctrine is to be rejected on this account, that it rests upon an effect trifling, and of little moment.

“ That

Coelius Aurelianus. *Locumii Opusc.* Aureum. Aretæus, Philumenus, Galen, Paulus Ægineta, Baglivi, Boerhaave, Shebbeare's Theory and Practice of Physic. Tissot's Practical Obs. on the *apoplexy*. Brookes's and the London Practice of Physic. Cullen's First Lines, vol. III. and for Dr. Brown's particular History of Apoplexy and the method of Cure. See the Second vol. of this Work.

“ That is the observation of a buffy coat which was taken up erroneously as a true symptom of an inflammatory disease.

If the vessels are strong the parts of the blood will be more perfectly united, but the blood itself will be indeed more dense, yet still more fluid, and will become more fit for penetrating into the very recesses of the body.

On the other hand, the blood will in consequence of weak vessels, be less perfectly united, the watery parts will spontaneously separate from the more thick, the latter rushing out where a passage is opened, discharging themselves thro’ the vessels which transmit watery fluids; the former will be retained at first in the blood vessels, but in the end will pass to the extremities of the body, thro’ the same passages, growing wider and wider every instant.

The former will account for the floridness of the complexion, in one species of disease, and for the paleness in another.

The cause of the one is too high excitement, of the other deficient excitement, which being in a suitable degree, and just the state of the blood is equally so. The humoral doctrine then is in every respect false.

OF ACRIMONY.

AS the blood is more bland, the quicker its motion is, if that motion be not too great; and the slower the motion, the more acrid it is, and as probably no acrimony enters the blood from without, or if it does, it is evident no remedies can do service in such a case, but the common remedies; and as the only acrimony of moment beyond the *primæ viæ* depends on debility, therefore except only to remove an accumulation of *fordes*, our intention of cure should be the same in case of acrimony, as in all other disorders of debility.

There

There are often violent pains in the stomach and bowels caused by an acid, which arises from debility. This acid is not the source of the cause, but a symptom coming on when the disease is formed from its cause, debility, and if not timely removed exasperates the disease.

There is no method of cure effectual in this case but such as removes debility; any other means are only palliative, and ineffectual.

On S P A S M.*

WHATEVER intention of cure *spasm* affords, it must necessarily differ from the method of cure of any of the two species of diseases, inasmuch as the

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The Common ACCOUNT of SPASM.

* SPASM, is derived from *σπᾶω*, to draw, a spasm, a convulsion, a strain. A *spasm* may be said to be present when any part of the human body, by the influence of the muscular membranous, or nervous fibres, is contracted involuntary. This spastic affection particularly affects the nervous and membranous parts; such as the stomach, and the whole volume of the intestines;

state of the body (in any or either which we wish to restore) is demonstrated to be the cause in the other, and it is repugnant to common sense, that the state could

whence proceed the hysteric and hypochondriac passions. A *spasm* is also present when there is an hæmorrhage, a congestion of blood, unequal flux of the fluids, anxieties, and suppressed excretions. A *spasm*, affecting the dura mater considerably, occasions contractions of the whole nervous and membranous system, whence an epilepsy, or universal convulsion. *Spasms* in the medulla spinalis produce convulsions, viz. obstructed perspiration, hæmorrhages, costiveness, stranguary, asthma, &c.

SPASMI. Spasmodic disease, in Dr. Cullen's Nology, this is an order in the class neuroses. The term *spasm* hath been variously used; in the most common sense, it hath signified any preternatural contraction of any particular part of the body, either without any stimulus immediately applied to the part, or which remains its cause is removed. More properly *spasms* are those preternatural contractions, which are attended with considerable mobility of the system. Dr. Cullen defines *spasm* to be a preternatural motion of the muscles, or of the muscular fibres; and under the title of *spasmodic* affections, he includes all the diseases which consist in the preternatural state of the contraction and motion of the muscular, or moving fibres in any part of the body,

could be both the cause and the contrary ;† besides *spasm* cannot be the cause of phlogistic diseases, because the noxious exciting

The *spasmi*, have generally been divided into the tonici and clonici, spastici agiterii, or motorii and *spasms*, strictly so called, and convulsions. But most of the diseases called *spasmodic*, are in respect to tonic or clonic, of so mixed a nature, that it seems preferable to arrange *spasmodic* disorders according as they effect the several functions, animal, vital, or natural. See *Cullen's First Lines*, viii.

SPASMUS. A Spasm, the cramp, or convulsions, from *σπᾶω*, to draw.

SPASMUS CLONICUS. Clonic spasm. In a morbid state, the contraction of the muscles, or of the muscular fibres, are voluntary, and are excited by unusual and unnatural causes. When the contractions are succeeded by a relaxation, but at the same time, are repeated without the concurrence of the will, or the repetition of the natural causes, and are, at the same time, repeated more frequently, and commonly more violently, than in a healthy state; this state of morbid contraction hath been named *clonic spasm*, and is what Dr. Cullen, in his *Nosology*, names *convulsions*. See *Cullen's First Lines*, viii.

SARDONIUS RISUS. Sardonian laughter. A convulsive involuntary laughter, and is thus named from the herba Sardonio, which is a Species of ranunculus, and is said to produce such convulsive motions

citing powers do not tend to constitute *spasm*, nor the remedies to remove it.

How can stimulants, which, by encreasing the excitement, encrease first all the actions, afterwards disturb some, lessen others, and continue to encrease the rest? Or how can they desert the whole body besides, and turn all their fury on its surface? How can venesection, and evacuants of all kinds, and low diet, which by lessening the distention, and consequently the

in the cheeks as resembling those motions which are observed in the face during a fit of laughter. This complaint is sometimes speedily fatal. If the *ranunculus* happens to be the cause, the cure must be attempted by means of a vomit, and frequent draughts of hydromel with milk.

SPASMUS TONICUS. Tonic spasm. In a morbid state, the contraction of the muscles, or of the muscular fibres, are involuntary, and are excited by unusual and unnatural causes. When the contractions are to a violent degree, and are neither succeeded by a spontaneous relaxation, nor readily yield to an extention, either from the action of antagonist muscles, or from other extending powers applied; this state of contractions is what hath been called a *tonic spasm*, and what Dr. Cullen names strictly and simply, a *spasm*.

the stimulus applied to all the vessels, lessen the excitement all over the body? How can rest of the body, which retards the blood? How can rest, of the mental faculty, and tranquility of mind, which denotes the weak application of a powerful stimulus, to the brain? I say, how can they neglect their wellknown office of acting on the system in general, and as if it was seized with a sudden distraction or madness, each or all, direct their whole fury on the extreme vessels? Shew me one exciting noxious power that constitutes a spasm? Shew me even one remedy that will remove it, and then I will allow you a similar operation of the rest, and will easily go into your opinion, which attributes the cause of a phlogistic diathesis to *spasm*.

What then is predisposition? What becomes of it? How is it to be explained, if *spasm* is to be taken up as the cause of disease?

By taking in too much victuals alone, and want of exercise, a person may be brought,

brought, from the hair breadth of good health, thro' all the different stages of predisposition, into a violent peripneumony; and, as was said before, when this is brought about, what difference is there in the state of the system, the day the disorder made its attack, and the day before it? Are the vessels, which are full this day, to be supposed empty the day before, or does the pulse, from being feeble, small, and soft, become strong, full, and hard all of a sudden, at the approach of a disease?

And does the phlogistic diathesis rush into the system, as if it were, at one bounce? Is there no encrease of strength, vigour of mind, or power of affections, which are observed in a phlogistic diathesis, neither the contrary in a contrary diathesis, nor even a deviation from sound health to be seen, before the approach of the disease?

Does a man that is predisposed to dropsy, or in the very disease, in an instant of time fall into a pleurisy? Or does the
indication

indication of the exciting powers act on the body in vain, during all the rest of the predisposition, and beginning of the disease? Will the various stimuli then of too intense thought, of anger, of plentiful victuals and well seasoned, of strong drink, of blood, abundant all over the body, besides put in motion by exercise? I say, do not those various stimuli, operating very long in high degree, constantly prevail by degrees.*

On the other hand, is it to be supposed that they excite the disease, by a sudden assault, and constitute it, by bringing on a spasm, on the extreme vessels, and not distending the rest of the body? Will predisposition, which always, in most diseases, (altho' not sufficiently understood, has been admitted) be necessary to constitute spasm? It must be so (that is, it can't be denied) a predisposition to this and other general diseases will be admitted; and if it be admitted, it cannot be denied but it is connected with the state of the disease, and that predisposition, differs little from it,

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the one bordering immediately on the other.

Every other symptom, which characterizes the commencement of a disease, (if you except a slight confusion of some of the actions,) depending also on the same powers, on which the state of the other actions depend, and which are to be removed by the same means. And, therefore, if spasm be peculiar to the former, it must be to the latter; but spasm is by no means asserted to take place in predisposition; nay it is even admitted to be absent; therefore, we are not to admit its existence in disease.)

Therefore, inasmuch as the same exciting powers, which constitute disease, constitute also predisposition, and are found to constitute both, by the same mode of operation, the same effects must be judged to flow from their common operation, and not one effect in one case, and a different effect in another.

Whence

Whence it is clear, that spasm, which is wanting in predisposition, cannot exist in disease.*

In fine, as spasm is said to arise from debility, see Dr. Cullen's First Lines of the Practice of Physic, even on this very account, it must necessarily be different from phlogistic diseases; for debility cannot take place in diseases which depend on too much vigour as a cause, which thing is powerfully confirmed by stimulants causing these diseases, and debilitants removing them effectually; whereas, there are some symptoms, such as horror, languor, and lassitude, which indicate a diminution of the actions, and therefore may be said to prove debility also as a cause; nevertheless, no debility takes place, which as a cause, might produce these symptoms; so that order is evidenced from this circumstance alone, because the same noxious powers, which stimulate too much, create those too, and the same remedies remove them which remove all the other symptoms.

If venesection allays the great action of the vessels, and removes the other symptoms of the disease, will not the horror, languor, and lassitude be removed also at the same time? Which, if they can be removed by a debilitating power, can they be supposed to proceed from the same power? Who is it could say so?

Spasm cannot be said to be the cause of phlogistic diseases, because, besides that in them no debility exists, a distention, or any thing representing it, is intirely wanting to the fibres of the extreme vessels which distention, will be afterwards proved, to be necessary, in order to constitute spasm with an atony and laxity of fibres, how much does this distention differ from that, which induces a spasm on the stomach, intestines, bladder, renal vessels, or biliary ducts.

Besides, if it was sufficient to cause a spasm, the spasm should not attack the extreme vessels, but all the rest of the vessels, which are filled more than those! but neither the one nor the other is true, nor
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can any thing which represents distention in effect, such as whatever causes a tetanic spasm, discharge the office of distention in this place, for whatever that be it belongs to the muscles, and is connected with the effect of the will, to which the vessels, and organs of involuntary motion cannot be subjected.

Lastly. Phlogistic diseases must be free from spasm, because, spasm is peculiar to those diseases, whose cause is debility; whereas, all the symptoms of phlogistic diseases are proved to arise from too much vigour as a cause.

There is no proof more certain of a disease being asthenic, and of the absence of a phlogistic disease, than the presence of spasm, or convulsion.

This observation cannot but be of the greatest service, both in the diagnosis and cure, and from the same you may learn how great this error must be, which not only connects spasm with a phlogistic diathesis but even supposes it the cause of that diathesis;

diathesis; and does not attribute it to its proper cause, but a new and unsuitable one.

There is nothing more consistent with itself than nature, nothing more observant of order and form, wherever she shews any part of herself, you may be assured that the other parts are arranged in their proper order. Some nearer, some more remote, some contiguous and others removed at a distance, all arranged like the limbs in a man's body, and disposed in their proper places, so as that to be sure that any one limb is not connected with any other in disorder.

As spasm then in phlogistic diseases, but especially when supposed to attack the extreme vessels, is the same thing, as if you supposed one of the feet to grow out of the forehead,

But, on the other hand, by supposing a spasm to attack some of the interior cavities in asthenic diseases, which are characterized by general symptoms of debility,

ty, and a distention of the part affected, you will set the foot in its own place back again, corresponding to the other foot and lying under the thighs and relative parts of the body.

Over and above to the arguments already mentioned the following may be added, that spasm in consideration of the cause of phlogistic diseases is intirely nugatory, as I have at full length proved, that a phlogistic diathesis alone, is sufficient for constituting phlogistic diseases. Besides, what is considered as spasm in those diseases, is nothing else than the phlogistic diathesis being more abundant on the surface than interior parts of the body, which shall be hereafter proved at full length.

The real state is an encreased density of the muscular fibres from an encreased excitement, diminishing the diameters of all the vessels, and closing up some of them; which state, is brought about by nothing else but the noxious stimulating powers, which

which constitute all the other symptoms, and which are removed by debilitants alone, which also remove all the disease from all parts of the system, to the same thing belongs also this truth, that the former alone create a predisposition to disease, and the latter remove and prevent it. What can the simplicity of nature require more simple than this explanation? Or what can be more repugnant to the doctrine of spasm?

As spasm is intirely excluded from the cause of phlogistic diseases, so it has no more to do with the extreme vessels in fevers, which you are to consider as asthenic diseases; in which fevers altho' debility, which is required for constituting *spasm*, and indeed is necessary to constitute it, when it attacks the interior parts of the body, is not wanting, nevertheless distention which is as necessary is absent, but if those vessels being so much filled and distended as they are accustomed to be in a phlogistic diathesis, nevertheless do not arrive at a distention sufficient for creating spasm; these

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same vessels now when empty, as in the case of debility, are much less to be supposed to arrive at the same degree of distention. Distention is necessary for every kind of spasm (if you except one kind of it;) which exception does not invalidate my argument. In dyspepsia, a fordes or air let loose, and in like manner in the gout, which is a peculiar dyspepsia, in the cholic; air also and imparted fæces, in the renal and biliferous ducts, concretions constitute the distending cause. What is there in the extreme vessels of a person in a fever like, or analogous to these distending cause?

Tetanic spasm is that which does not require a distending cause, but that there is something like distention in this too, is proved by a similitude of effects, the consideration of which does not make any thing for proving this spasm on the surface, as it is called by a certain Gentleman; its place being in the muscles, and consequently connected with the will, does not admit us to attribute it to the

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same cause. As this is the case, hear the arguments in defence of spasm on the surface; in it the skin grows pale, the body is lessened, swellings, &c. decrease, ulcers are dried up, rings fall off, &c. but the cause of paleness and diminution of size is easy to be understood, viz. they take place in consequence of the general debility, in which the heart participating of this debility which is general, cannot propel the blood to the extreme vessels, the same is the cause, of the diminution of tumors and drying of ulcers.

If spasm was the cause of these affections, see what would follow. However slowly the blood may move, it would not stop before it reached the extreme vessels, and would be collected and accumulated there, and being thus accumulated, would distend such parts of the vessels as are open, would press on the contiguous parts of the vessels, and fill the adjacent parts all around, and being thus abundant, in a little time would restore the colour, and in fine would encrease the discharge of ulcers, altho' being

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ing checked in the beginning by the spasm, in consequence of their being soon enlarged, and in consequence of some of the vessels, being closed and eroded by the encreasing acrimony, &c.

The only arguments which have been advanced to support the opinion of spasm, refute it, and prove debility as the cause.

I know very well you will say that the extreme vessels alone, are not affected, but also a contiguous portion of the same vessels are equally affected, but from what indication will you say so? Will the paleness, diminution of size, decrease of tumors, and drying of ulcers in the parts which are visible, illustrate the state of the parts which are not visible? but you, as an author, will say what is necessary for your own purpose to take place, but what is not easy for others to prove; but let me grant you your spasm for a time, provided you promise that you will hold it fast, and not let it fly out of your hand. In the beginning of a typhus fever, that the skin

is dry, and at the end of it, the sweat is clammy and thick, is true; it happens too in some cases that intire blood, with all its parts, passes thro' all the pores; What is your spasm doing now? What is become of it? How comes it that this spasm, which proves an obstacle to the insensible perspiration, can now transmit, even the thickest fluid in the body, (*as in petechæ &c.*) What kind of a spasm is this, which opens a diameter three times greater than that which takes place, when there is no spasm at all, as in sound and natural health? Even now, you will not admit that spasm is taken off, because you must forsooth know, that while this fever, which is the effect of spasm, remains, nay encreases, the spasm, as the cause, must remain and encrease. A consideration of the operation of the common powers, to create predisposition to fever, and fever itself, overturns the idea of spasm; for how can cold following the nature of its operation, which is always to corrupt or debilitate? Or how can heat, the former directly, and the latter indirectly, debilitating

litating? How can hunger? How can fear, grief, immoderate venery, the loss of blood, and the other fluids of the body, and weakness left as an effect of former diseases, which both in predisposition and in disease operate on the whole body, and excitability by debilitating them? I say, how can all these powers be supposed to desert their usual operations, in the beginning of the disease, and transfer their whole power on the extreme vessels of the surface of the body? If you should say that morbid matter, generally contagious, does it, how can you prove it?

If tonics and stimulants, which relieve and remove all diseases of debility, and the whole asthenic species, remove the effect of this matter too, of whatever kind it may be, and if all debilitants are certainly injurious, which is proved by reason, and confirmed by experience, and if, without the common noxious powers preceding, fevers never attack the system, nor consist in any other state of the body than such as is caused by the noxious powers

powers, is the effect of this morbid matter, in constituting a disease, or its operation to be supposed different, and not the same with the common noxious powers; *So ho, friend*, look close to the matter, consider for a moment the notion of spasm, not as yet discovered, divest yourself of all prejudice for a short time, make use for once of the reason which God gave you, which if you do, and make use of your own judgment, you never will be persuaded, that, that effect, which is the same, and one perfectly contrary to it can be the same.

There is nothing in nature, nothing in truth plainer, more certain or simple, than that all the symptoms of fevers properly so called, arise from noxious debilitating powers, whether they are general ones, viz. common to all fevers, or whether they be symptoms peculiar to each, consist in debility, and yeild to remedies that act by their stimulating. The matter causing fevers, if such there be, either gives
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the peculiar form of the disease alone, or acts altogether in the same manner in which the common noxious powers act; and to the effect of both, proper relief is administered by the same kind of action, and by the same powers, both before the disease and after, which is to be removed by remedies, which act equally extensive, by stimulating the whole system, as the noxious debilitating powers have done, having acted on the whole system, and having left debility as an effect, which effect is the consequence often of the operation of debilitating powers often applied, as *T.E.* to remove fevers, which is diametrically opposite, and clashes with the opinion of *spasm*. Therefore, if in this, as well as in the other class of diseases, no *spasm* existed before the disease, it cannot exist after it is constituted.

This opinion of *spasm* is further refuted by this, that the remedies are not supposed to act on the general system, in the intention of cure, and that these remedies have

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no general operation at all, nor does the intention of cure correspond with the cause of the disease ; on the contrary, all jar with all, each with each, and one with another. Of the noxious exciting powers, some are said to be sedatives, from the very beginning ; the effects of which are said to be both debility, spasm, and encreased action ; and in these they supposed the cause to consist.

In the method of cure, trifling attempts are made, first to remove the languor, afterwards by venesection in small quantity at a time, but long continued, and consequently very great in the whole ; and by purging or evacuants, spasm, forsooth, is said to be worn off at last, when the strength of life is entirely broke, and life tottering.

At last, a very small quantity of wine is ordered, and lately, physicians have administered opium at that period.

Where is the common connexion between all of these, or of each among themselves,

selves, or of one with another? How do they chime together, if we are to depend upon these, what agreement is there between them, as one derogates from our dependence on the other? if reason is to be looked to, what uniformity or method is there here, where things the most contrary to one another, are combined together, and the most discordant things adopted to the same principle?

Therefore, the opinion of spasm disagreeing with fact, and with reason, and with itself, is betrayed by the discordance of its parts, and is proved to be false, by the very arguments which are brought to defend it; one refuting, and, as if it were, cutting to pieces, with mutual antipathy and hatred the other.

But, over and above that, it disagrees with itself, with all fact and reason; it is repugnant to the state of predisposition, and false in every respect,

The spasmodic doctrine made no alteration at all on pathology, none in the method of cure, much less making every alteration in both.

The whole of this doctrine is the remains of other antiquated theories. First spasm, without any preceding condition, is taken up as a cause, which but very lately has been said to proceed from a state of debility, both in phlogistic diseases, and in fevers; which state of debility has been but obscurely proved *at last*, and as lately ill applied to phlogistic diseases, as well as to the doctrine of fevers.

This constituted spasm is supposed to encrease the action of the nervous power, &c. Here we have a three-fold cause, consisting of debility, spasm, and increased action, which is absurdly called re-action, (See Dr. Cullen's First Lines) various in effect, as inducing the proper symptoms of each of these parts; accustomed also to be removed by various remedies, not in

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the same order in which the cause advanced, debility obscurely, confusedly, and to no good use or purpose, altho' manifest by the clearest symptoms, is seen like the moon thro' the clouds, or is supposed to be seen, and only made mention of here, is introduced on the stage like a dumb character; Here, where you expect a great deal new, contrary to your expectation, no such things is brought into practice.

The only state which is considered as the cause of the disease is spasm, and from thence encreased action.

The exciting powers, which both before the disease and after it, any man, not blinded by prejudice would see and admit to act on the whole body, and diffuse the debility throughout the system.

I say, those noxious exciting powers are supposed to turn all their fury on the extreme vessels of the skin, and there, after constituting a spasm, to excite the nervous

power, much greater and much higher than what takes place in health.

That you may with more certainty understand, that tho' an evident debility, which has been proved, cannot be conceived from the spasmodic doctrine, there is no provision at all made for it, neither in your indications of cure, for they are many, nor in the remedies prescribed : certainly blood drawn in the beginning, then purging used in the course of the disease, and lastly as many glasses of wine and water, as bumpers of pure wine, which a man in health may take, is ordered in extreme debility, and given by degrees, and drop by drop, on the very verge of death, which tend not much to give vigour and remove debility.

Consequently the present opinion of spasm does not differ at all from the former, neither the one or the other differs from either ; and in fact, the real difference between the one and the other, is only in
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this, that in the one debility is mentioned, but not in the other.

Why do you, who defend spasm, whoever you be, as placed in debility only in words; I say, whoever you are, why do you draw blood in the beginning of a fever? Is not it because you supposed an encreased irritation, or a greater action of the nervous power than in health? How do you know that so great an action takes place, or so great vigour? And that, that is diminished by venesection; whereas all the symptoms shew that the patients strength is broke and reduced. Is it because *Sydenham* applied no other pathology, no other method of cure, and that only in all diseases.

But if he, (who by discovering the nature and cure of phlogistic diseases, deserved well of medicine,) did not see other diseases proceeding from debility as a cause, and consequently applied no pathology or method of cure to them, was it

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not your business, as well as his to make use of your reason, and supply the defects of that great man. If you read the doctrine I have already delivered, and consider from that, or any other source, that the powers, on which all the functions of life depend, deviating from that standard, which is necessary for sound health, sooner or later cause a predisposition to disease, and diseases, themselves; and according as these powers encrease more or less, you would consequently grant, that predisposition to these diseases, the phlogistic consists in a degree of excess, in the power of life, and, that the diseases themselves consist in a still greater degree of the same powers.

Because by the instructions of *Sydenham*, you apply powers that shorten life, in order to re-establish health. Could not you conceive that the same powers may possibly be deficient, and sink below that same standard, which is necessary for health, and thus, constitute a predisposition to diseases of a quite contrary nature,
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and even these diseases themselves ; and could not you perceive that this predisposition consists in a certain degree of deficiency of the power of life, and that these diseases themselves consist in a higher degree of that deficiency ?

If life is injured by a too great quantity of the exciting powers, should not we reasonably suspect, that it may possibly be affected also by an opposite cause. This is evident indeed to common sense, but not to you.

Because *Sydenham*, in the peripneumony, with great propriety drew blood, but very improperly in a few other cases, and purged, you do the same in a typhus fever, and the same in a plague ; but you say, you very sparingly apply the former of the two remedies ; a very great deal of thanks is due to you for this ; you establish no difference in the thing itself, but some in the magnitude ; you observe, in the former diseases a phlogistic diathesis, and a great force of stimulating noxious powers ;
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in the latter diseases you observe the same irritation, and the same affections in kind, in the body. You draw your lancet against both. You equal the giant and the pygmy, by cutting off something from both, but somewhat less from the latter: with the same hook you cut down the luxuriant and pining crop of corn. If reason, however, well grounded, cannot prevail with you, will not certain and manifest facts, found in your ears the voice of reason? do not languor of body and mind, weakness of intellects, loathing of victuals, nausea, and vomiting, a feeble, small, irregular pulse, paleness, inability to perform voluntary motions, characterize fevers, and clearly distinguish them from phlogistic diseases?

In these species of diseases, are not all symptoms contrary to those of the other class? do these symptoms show no difference but that of magnitude? where are these indications of your boasted irritation; yes, you say quickness of pulse, dryness

ness of skin, and encreased heat in the same.

To suppose dryness of skin to proceed from spasm, is begging the question, for I have proved, page 147, &c. that it depends on debility.

The heat in asthenic, is much less than in phlogistic diseases; very often it does not exceed the heat of a person in health, in the former, sometimes it is below it. This heat is unequal, in the beginning, it is encreased in its course, in the extremities afterwards diminished, and at last entirely extinguished; which marks are sufficient to distinguish it from phlogistic heat, which is always great, altho' the patient may seem to feel cold, and which is universal all over the body, and never *morbidly* diminished, while the type of the disease remains, much less every where extinguished.

Both depend on suppressed perspiration, but each from different causes. The phlo-

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gistic heat is constituted by a phlogistic diathesis, being greater on the skin, than on any other part of the body, but the heat that is called asthenic heat, arises from the blood not being propelled to the extreme vessels from debility. How that takes place I have partly said, and shall more at length hereafter. It is enough for me to mention, that this is the case at present.

Heat in both these species of diseases, is altogether a different affection, proceeding from a different origin, attended with different effects, and pointing out different indications, which is evident further from the other effects which attend both species of diseases.

All symptoms of abounding vigour attend a phlogistic heat, and all symptoms of deficient vigour attend an asthenic heat; for even the velocity of the pulse is not to be excepted. Which thing gives us the clearest assurance, that both heats depend on the general cause of the whole concurrence of symptoms, and each of its own. For,
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if any *Idiopathic* disease be an affection of the intire excitability, which is the same and indivisible all over the body, and is produced by either cause, to wit too much or deficient excitement, this truth must follow of course.

Therefore, whenever any, or either affection can be clearly seen, it is manifest that the affection alone, and no part of another affection, pervades the whole body. If that was not the case, excitability would consist of parts, one part admitting of too much, and another too deficient excitement. But the whole doctrine delivered in, is repugnant to this, by which it has been demonstrated, that wheresoever any one or more powers, whether noxious or salutary, and exciting too much or too little, acted on in any one part, that those powers, acted upon the whole system, with the inequality already mentioned, and encreased or diminished the excitability all over the body, in proportion as they were applied.

In order that your assurance of this opinion may be the better grounded, I challenge you to shew me any one of all the *general diseases*, wherein it appears, that some symptoms of a contrary indication are connected together, while most of the symptoms are either phlogistic or asthenic. If you can, I shall go over into your opinion, and forsake my own, but if you cannot, what sufficient reason can you assign for not coming into mine, and taking up this doctrine.

It must be granted, that that heat, which occurs in fevers, properly so called, does not proceed from irritation, but depends on a symptom of the general disease, viz, suppressed perspiration.

Which origin of heat is also repugnant to the celerity of the pulse, as will appear from the following very plain similitude.

Suppose a part of a very small vessel, to be capable to contain three globules of blood, and suppose two globules to fill it,
when

when in a state of health ; suppose three globules distending it, to constitute the phlogistic state, and one globule, to constitute the asthenic.

Inasmuch as the magnitude of contraction in the vessels, is correspondant to the quantity of blood, that distends and stimulates them, consequently the greatest force of contraction will be in the first case, less in the second, and least of all in the last.

The excitement corresponding to these, must observe the same proportion. Again, inasmuch as first the distention, and then the contraction, require sometime to perform both motions, therefore, the more blood that is taken in, first causing a distention and then a contraction of the vessels, which is to transmit it, will be longer in action ; therefore it is evident that the slower the distention and the slower must contraction be ; that is, it is manifest that the slowness of contraction will correspond to the quantity of blood.

This

This example being admitted, let the time of contraction in the case of three particles be as three, the contraction from two particles being as two ; that from one will be as one, which is very manifest.

If this be the case it is evident that the *celerity* of the pulse will be in proportion to the quickness of contraction, &c.

Hence the cause of the velocity of *pulses* in fevers is evident, for the less the quantity of blood in the system, the quicker will the *arteries* contract, and thus the *pulse* will be the quicker) and if we are to form a judgment of the magnitude of excitement from the *celerity* of the pulse, we will conclude that the quicker they are the less excitement there is in the system, and, the less stimulus causing excitement. Consequently, the *celerity* of the pulse in fevers is a proof of pure debility, and not of irritation or encreased excitement, which, requires debilitating remedies,

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This thing is confirmed by every consideration and observation of perfect health, and of disease of either species, and by good and bad health.

Thus in *boys* and *women*, in like manner in feeble persons of both *sex*, of every age, the pulse is quicker than in adults, and in strong men, in predisposition to asthenic diseases more than in *phlogistic* predisposition, or sound health, in asthenic diseases themselves, than in phlogistic diseases, in fine, in these too, when far advanced or near their termination, than in the commencement; I say in all these the pulse is quicker than in asthenic diseases, and that in proportion to the magnitude of debility.

Besides old people themselves, whose pulses are often slower than to seem to agree with this series of velocity of pulse, in proportion to their debility, the cause of which is not to be adverted to here; *nevertheless*, have a celerity of pulse increased in proportion to their increase of debility

debility, consequently in fevers as well as in all other diseases, and weak habits, debility, and not irritation, is the cause of the celerity of pulse.

If any one may ask me, as no irritation takes place in fevers, how comes it to pass that the common method of cure always has in view irritation alone, and not at all debility?

The reason is evident, the antiphlogistic method of cure was not discovered after observing supposed irritation in fevers, but after discovering the antiphlogistic method of cure, and properly applying it in phlogistic diseases, this apparent irritation, was discovered in fevers, so as to afford a probable cause why it should be applied in these diseases also; in a word the phlogistic nature of diseases alone, and the antiphlogistic method of cure being known, was applied to cure all diseases.

Thus blood is drawn, to draw off morbid matter, and to remove Spissitude, and
thus

thus in the name of *God*, to empty the vessels in fevers as well as in phlogistic diseases, which promiscuous method of cure, *Sydenham*, with no better reason than other physicians, but generally with more success, having avoided the other medical errors, but not understanding the nature of debility, practising with propriety in phlogistic, but very improperly in other affections, delivered it to those that were to prove *lensor*, and spasm. Wherein some, however, trifling reason, may be assigned for removing morbid matter or *lensor*, but no reason, nor the shadow of reason, nor the shadow of a shadow is assigned, or can be conceived in the mind of any man, that once considers the matter for removing spasm, or allaying irritation, which is supposed to be excited by spasm.

This pathology, and the venesection adopted to it, are the remains of the grossest dregs of dark errors. In the spasmodic doctrine, *vomits* are administered, with this intention chiefly, for this is their

mode of talking, to cause a continual nausea, in order to excite a *Diaphoresis* by this nausea, and, to wit, that by it, spasm should be removed; these are their words. In fact, an ample method of evacuation is applied, and the *Alexipharmic* method for expelling morbid matter, as they supposed in those days, is in fact brought back and enlarged. On the other hand, nothing follows that method of cure, whereby spasm can be believed, or conceived to be any how removed.

Shew me any one case which by so affecting the skin, as to seem to remove spasm, that it can be removed by a nausea; point out one medicine or remedy, whose manifest operation is to remove it, will you say Emetic tartar? you cannot; Nor would any one be hardy enough to do so.

By confessing that fevers must have a certain course, and a certain length of time, you admit that your remedy does nothing. What you consider as a spasm,

viz.

viz. dryness of skin, and paleness remains, until after the force of the disorder is encreased, until the patients strength is altogether broken, and death in fine at hand. The relaxation of all the vessels, which is always in proportion to the magnitude of debility,* being encreased to the highest degree, and the thinner part of the blood separating from the thicker, I say, until viscid sweat, and the intire blood itself, consisting of all its parts, pass out thro' every part of the body, which being the case as the fever continues, rages, and arrives at its extreme magnitude, you cannot but confess that the cause of the disease is not removed, but encreased in proportion. What an unhappy confession is that, which allows that the only remedy, and which can scarcely be conceived, as useful against spasm, does not touch it, which betrays the whole cause in one single circumstance.* You deny, and justly deny, that febrile or morbid matter can be eliminated or corrected; for over and above the argument before urged, as that must be diffused throughout all the body

and throughout all the vessels, so all of it cannot by any means be supposed to be taken away along with a little of the fluids, which any species of purging would have affected, and it has been proved also that it cannot be changed, but then why do you make use of that very same remedy, which the former method of cure has pointed, if a slight sweat or moisture which you call *Diaphoresis* is the effect of its operation, which you must own yourself must affect or not answer your intention? Is not this purging in every respect, and so much so, as the intention of making use of it is confessed, and allowed to be, to remove morbid matter? but you say it is less, because it does not arise to a proper sweat, but you may compare the smallness of that moisture with the length of time, and both, with the debility of the patient, and you will see it is large enough; but you'll say, this is not simple purging, but the medicine cannot be administered so as to stop short of vomiting; consequently a slight vomiting is now and then permitted, which continued for many

many days, becomes in the end very plentiful evacuation, but the matter does not even rest here, there is something more.

The medicine is directed, in order to purge and deterge the *primæ viæ*, over and above that, a full vomiting is ordered once or twice in the beginning; the same remedy is ordered in quantity sufficient to pass the pylorus, and cause a stool, which however cautiously may be affected, when it continues for a length of time will become in the end a very considerable purging.

A threefold purging then being great, and in consequence of its long application, being greater, and often being consequent to a preceding venesection, and the great debility induced by the diseases I say, it must be very great, in consequence of all these circumstances conjoined; still by saying that this is very small, you either deceive yourself or others.

If

If all the force of a phlogistic disease; suppose a rheumatism, is reduced often by sweat in the space of twenty-four hours, which sweat may amount to four pounds, will not one third of that sweat being daily lost, for many days, by a more gentle method of evacuation, become in the end a much larger sum? and if all evacuation acts by debilitating, which is a fact confirmed, and which you can't yourself deny, will not that debility which your remedy causes, threaten the most fatal consequence to that patient, whom, the force of the disease has spontaneously brought to extreme debility? that this is the case, who can be ignorant?

One course of purging downwards by a large dose of Sal. Glaub. is often sufficient for removing a phlogistic disease, and frequently of inducing a fit of the gout, which hereafter will be proved to be a disease of indirect debility; which circumstance points out, by a very clear proof, how far this purging is effectual to diminish excitement. How powerful is the same, as
a cause

a cause of debility, is in the most clear manner confirmed by its operation which is next to venesection, as a remedy of a phlogistic diathesis; and to the same belongs also that looseness of the bowels which makes all mankind weak.

The same things are to be said of sweat, which is a powerful remedy against phlogistic diseases, whose use is only excepted in the commencement of them, when they are in their greatest violence, where the magnitude of excitement is unable to bear the stimulus which attends such habits, and is absent from strong ones.

The operation of vomiting is not unlike this kind of purging; is more seldom used in phlogistic diseases, because a sufficient quantity of the fluids, whereby the quantity of blood may be diminished is not easily taken away by this evacuation; but in every other respect it would be equally serviceable.

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A medicine stopping short of vomiting, and only exciting a nausea and causing moisture and sweat on the whole skin, proves its extensive powers of debilitating the body, and relaxing all the vessels, especially the extreme ones. Vomiting also attends feeble patients, with other discharges too; so that the chief and perpetual symptoms of diseases of pure debility, such as the *Gout*, *Dyspepsia*, *Fevers*, and the plague itself, are nausea, vomiting, and loathing of victuals, which depend on the same state, and differ only, as every one knows, in the magnitude of the affection. See what must happen to you in a nausea, do not all the actions of the mind and body seem oppressed, sensation diminished, and almost extinguished, and you to be distant scarce a hairs breadth from non-existence? Consider what is life, is it not manifest that more of it exists in you when free from diseases, and even in diseases of a slight kind, than in the more powerful; as all your actions, and your quantity of life is in the same proportion and the less life you have, the more languid

languid they are. Must not the above truths be evident ? In perfect sound health, and also thro' all the different stages of predisposition to phlogistic diseases, until a proper disease comes on, altho' you exclude the state of disease, which, when moderate, should not be excluded ; are all the other actions of the body as well as of the stomach in a sound and perfect state ?

When does a hungry stomach vomit, nauseate, or lothe victuals ? For a man in perfect health, who has a vigorous habit without disease, nay, does not it desire victuals ?

Then are not all feeble people, such as those predisposed to asthenic diseases liable to some of the foregoing affections, and when really attacked with those diseases, when are not they affected with all these symptoms ?

What is a *dyspepsia* ? What a *gout* ? but diseases chiefly arising from these injuries ? Is the stomach ever well in fevers

or in any disease of debility? as well as in a different state of the body.

What then is a perpetual symptom of debility? An imitation of it cannot contribute to strength, which is our only intention here to restore weight with yourself, that relaxation of all the excreting vessels, which is the effects of all evacuation. What then is their state in perfectly sound health? Is not it intermediate between a morbid density and morbid relaxation? What is the state of the same vessels in every phlogistic diathesis, whether great, moderate, or small, from the same narrow line of health to a state of indirect debility, proceeding from too great excitement? I say what is their state, except greater excitement than in any other state, and a density corresponding thereto? In a word a phlogistic diathesis occupying the extreme vessels.

On the other hand, what is the state of these vessels in an asthenic diathesis, from the boundary of sound health thro' all different degrees, reaching to disorders of
extreme

extreme debility, whether direct or indirect? Is it not a state of too small excitement, which, is commonly called, and of a relaxation corresponding thereto, in a word, is not it an asthenic diathesis occupying every where the extreme vessels? Do not nausea, and often recurring vomiting, a loose belly, propensity to sweat, caused especially by the smallest effort of motion, or any moderate stimulus prove their state to be such?

If, of all the extreme vessels, these alone that pass to the skin, and not even these alone, are dry. Does not the weakness of the heart easily explain that matter? And altho' in consequence of the debility not being diminished, but increased, the sweat afterwards passes out thro' all the pores of the skin, without any very sensible cause.

Do not their diameters, encreasing in proportion to the debility, and their diminution of action, further augmented, and the thinner part of the blood separating from the thicker, arising from this

diminished action, and flowing out where a passage is afforded, explain this difference, which may be apparent, but not real? Does not your imitation of this manifest debility, which according to your own confession, eliminates no morbid matter; in like manner encrease the manifest debility of the disease, and redouble its bad effects? You suppose that you keep the bowels easy, and prevent an irritation, arising from your constipation, and determine the antispasmodic power of your medicine to the skin, and all this by gentle sweating.

If you affect all this by evacuation, you exceed the purging of the *Alexipharmic Physicians*, who are now exploded, and justly; you do more harm, you do not remove the spasm, which I have demonstrated to be imaginary, and you encrease the amount of the debility in proportion to the quantity of purging you apply. On the other hand, if the effect of the purgative, in consequence of debility, or defective stimuli, necessary to keep up its operation,

operation, does not act with the full power of a purgative, and tho' the quantity of fluids lost, be less debilitating on that account, while, nevertheless, it debilitates in part this way, at the same time a perpetual nausea, and a perpetual resolution of the extreme vessels being long kept up, cannot but greatly debilitate, and encrease the weakness resulting from the disease.

Of all purgative operations, and such others as reduce the power of excitement, what plague? What curse of *Heaven*, can be more severe than you and your method of cure? To you and your purgative method of cure, are owing *Colliquative Diarrhæas*, *Colloquative* sweats, hæmorrhages from different parts of the body, extraordinary frequency of pulse, which you impute to imaginary irritation, the strength of the patient entirely broken, and inevitable death.

No vehement purging downwards, such as you condemn, equal or adequate to the
produc-

production of destruction, equal to yours. As you have borrowed from the *Alexipharmics*, both whose pathology and method of cure you pretend to explode, such a method of cure, so you renew your purgative method, and add also a far worse one.

You have taken from others the antiphlogistic method of cure, which you apply in the whole course of your *Fevers*, and have not derived it from your own theory whence nothing spontaneously nothing consistent flows. During the whole course of *Fevers* you add abstinence to the antiphlogistic regimen. As if it alone was not sufficient to do harm, which was ordered with propriety in phlogistic diseases, as being most efficacious for diminishing the most powerful of the noxious powers, to wit, an abundance of blood in the vessels; so, on that very account, it is most destructive in *Fevers*, in which treatment the unhappy phlogistic pathology being again added to the spasmodic doctrine, like leaven converts every thing
into

into its own nature: I say the phlogistic pathology bringing along with it the opposite method of cure, like fate, with its Iron nail, taking also along with it, as a companion, that provident and wise intelligence of the mind viz. the *vis medicatrix* has proved destructive in such diseases of debility. In which disease victuals, and some form of drink, strong forms of which many are accustomed to, are necessary for the support of life. Abstinence from food for a few days is sufficient to kill any person. If such abstinence puts an end to the lives of the robust, how will not it much more destroy the weak, labouring under extreme languor, approaching to death, and hasten on their dissolution? Common sense tells us so. Altho this provident intelligence prohibits the administration of victuals, because the patient does not desire it, at least reason recommends the administration of alible matter in a liquid form, and consequently more easy of concoction, and fitter for the support of life; and experience proves the propriety of such administration,

ministration, both which direct us to administer strong drink besides, and in somewhat a larger quantity, in order to supply the defect of victuals, because, these being taken in too small quantity, are insufficient for supporting the system.

I say, then we should follow reason and experience, which establish this only rule, that as much of both may be given as the patient can take without inconvenience.

If in fact, you should reject, as you seem to do, the Ignorance of Stalh, By what reason, by what practice, will you defend yourself? you fear irritation too, and lurk behind the shield of *Sydenham*, fearing to advance openly, and defend yourself from death with your own, thro' cunning and consciousness of your own weakness. But your irritation has been refuted, and that great man has been proved to have been mistaken in that part. Which author, in some other diseases very improperly, as also in proper *Fevers* used your method of cure. Where-

as irritation cannot be proved. You'll find no protection here, or if protected, you will not escape, as there is no necessity of admitting the errour of any man as a truth for your sake.

Now, being forsaken by *Sydenham*, and soon to be delivered up to his adversary*, you will run away to the Camp of *Stalh*, and say, that it is better to give the patient what he does not choose, rather than what he chooses to take; nor will even this be granted you, reduced to your last shifts, as being proved false both by reason and experience.

Nor should that quantity of victuals and drink, during the whole course of the disease, to its *termination*, which can be taken in by the patient, and be of service to him, be kept from him, because he does not desire such, and after its termination be given him, because he desires it.

A a Infine,

In fine, why do you reason thus so inconsistent with yourself, and one time confess that you are of this or that party; one time you confidently deny it, another time endeavour to conceal your self, another time, reluctantly and obliged, betray yourself always as far; for thus you can prevail by your credit, claiming to yourself the sounding title of a discoverer, altho' you turn yourself into every shape, and in obscure windings, and fringed mazes of words, void of substance, by chanting out like the priestess of *Apollo*, by putting off proofs, and by promising to prove things that you never will do; by relating falsehoods, and the opinions of others, but not detected to be so, because obsolete and out of memory, assuming as your own, the opinions of others, and by keeping silent, as it were, thro' modesty, your pretty little contemplations of the fancy, to explain all the phenomena of nature, you milk the thoughtless and ignorant, you impose upon them, you deceive them, you stimulate them, and fire them with a desire and admiration, which are inferior
to

to the endeavours you make; nevertheless, you have proved nothing of your own in the doctrine, which is called spasmodic by name, but nothing in fact.

On the other hand, you will see all your works, which are stolen from those of others, different parts from different authors, and consequently altogether inconsistent, which you yourself cannot be a stranger to. I say, you will see others also discover your shift, with a pain of mind that shall not be mentioned.

As the defence of spasm was only, and feebly made by a man, viz. *Hoffman*, who, as it were, forsook its futility and attempted its defence but weakly, which is done away already by this doctrine which proves distention, which is so necessary to constitute spasm, to be wanting in it, and a contrary state to exist; and also as it admits of no predisposition, and as the method of cure differs intirely with the idea of the disease, which only is proceeded upon agreeable to former errors; and as

this doctrine, in its late supposed improved state, only rests on the ipse dixit of a certain teacher, is it not to be expunged from the science of medicine?

Spasm is so far from being a real affection, and the remedies applied to remove it, are so far from doing, or contributing any how to the restoration of health, that on the contrary each encrease the disease, and all certain destruction.

A person in a *Fever*, after first loosing blood, can with difficulty, be snatched from the Jaws of death; but with greater difficulty still, when worn down by various purging, long continued; but with greater still, when impaired, during the whole course of the disease, by famine; and when the stimulus of proper drink, or any other necessary stimulus is denied him.

The experiment which you have so often made on others, without knowing the event before hand, you should make on yourself; for you will confess at least,
from

from a regard to decorum that the life of man is not a trifling affair. Be first exhausted by every debilitating power, such as anxiety of mind, hunger, a subduction of the usual stimulus of wine, a loss of blood, and other humours, immoderate venery, languor, the result of a preceding disease, but still be not affected with what may be called properly a disease; let contagion not be applied to you, least your state may appear not at all better than a febrile one; being in this situation, then shut yourself up in your room, and confine yourself to your bed closely, prohibit yourself from all victuals and drink, except watery, for ten or twelve days or more, after taking away eight or ten ounces of blood from you in the beginning; during all this time, in consequence of taking your medicine, be sometimes nauseated, be sometimes vomited, sometimes purged downwards, sweat always, or at least be moist all over your body, except when every stimulus, whereby the prostrated power of life may be a little excited fails.

In

In fine, if it be the winter season, and the country very cold, take off the quilt and expose yourself constantly to cold, in fine, let somebody wet your lips, accustomed to strong wine, and strong drink daily. I say, let somebody wet your lips, for then you will not be able to do it yourself; let one or two sensible people, for the more ignorant they are of medicine, such as you practice, they will be better judges and witnesses. I say let them attend to this experiment, and such persons will witness that your funeral was the last of all the funerals caused by such method of cure.

As the certain destruction, produced by the spasmodic doctrine is alone a sufficient proof to overturn it; so, over and above the force of the arguments already mentioned, each of which, and much more, all tend to the same purpose; this added, confirms the same opinion with the greatest weight; and while the same method of cure, tho' none may be shown more efficacious among all the plagues conjoined,

joined, that have afflicted the life of man, can it appear to deserve a preference before an efficacious method at length discovered, and proved both by reason and experience? compare it with the imaginary cause of *Fevers*, which spasm, and its equally imaginary method of cure, the antiphlogistic to a fault; I say, compare the febrile cause and cure of them with what this doctrine advances, and the absurdity, &c. will easy appear. Febrile spasm is nothing else than an asthenic diathesis, somewhat more vehement in the skin than internally; encreasing it there, more by the power of heat, or the direct debilitating operation of cold, lessening the perspiration, on account of the debility of the heart and arteries, which is common to these with the rest of the system afterwards when this obstructed perspiration encreasing thro' all the vessels, enlarging their diameters, and by means of their inertness, suffering the thinner part of the blood to separate from the thicker, it encreases the excretion of the skin beyond measure.

Fevers,

Fevers, proceeding from this cause, are affections contained in no one part wider or narrower, internal or external, but diffused all over the system, such as you may suppose to arise from the noxious powers acting on the whole body.

The intention of cure should be equally general, and directed to no one part, but extended to the whole body, in order that the excitement, diminished every where, should be increased proportionally.

The remedies affecting this intention, are such stimulants chiefly as do not load the feeble stomach, unable to bear gross food, and equally to affect the excitability throughout; which doctrine agrees in every respect with every part of it. The noxious exciting powers, the cause and the remedies in all things, are the same here, as in other diseases of debility, nor does the contagious matter certainly taken into the system, and retained therein during the course of the disease, and afterwards eliminated thro' all the

the excreting vessels afford any thing new, but that it may give the specific form to the disease and encrease the effect of the common noxious powers, viz. debility, or in the intention of cure but that it must be supposed to require sometime to be eliminated, and consequently must need a free and open perspiration which is effected by the common stimulating powers and not by any peculiar sudorifics.

How far this doctrine differs from other theories, and also from the spasmodic is easy to be seen. The spasmodic is liable to all the objections stated, and also to this, that the spasm, which is supposed to be the proximate cause of *Fever*, cannot be extended to the other diseases, but each of these must be supposed to have a cause peculiar to itself; and thus those diseases which proceeded from the same cause, and, are attended with the same symptoms, if you except a few of little moment, and which are removed by the same powers, and cannot therefore be,

different, which would be contrary to the simplicity of the laws by which nature acts.

For if the same exciting powers, create diseases, and that certain remedies remove them, which is true, these diseases must proceed from the same cause.

But further, this doctrine is not confined to a few diseases, so as to exclude the greater part, nor even to all diseases so as to exclude predisposition, but applies altogether to the nature of all diseases of both species, and their corresponding predispositions. Thus for instance, the method of cure which it prescribes for *Fevers*, is sufficient to remove and obviate all diseases of debility, as it differs in no other respect than that of magnitude in the powers applied, which must be varied in proportion to the magnitude of the disease; In like manner, the method of cure in peripneumony or in any other phlogistic disease is applicable to all diseases, and all predisposition of the same species, regard being had, always, to the difference

difference of magnitude, in order to effect a general cure.

Of CONTRACTION and its EFFECTS.

THE entire and powerful faculty of self contraction, with which the muscular fibres are endowed, as it depends on excitement, so it is proportioned to its magnitude. This is attested and confirmed by all the operations of sound and bad health, and also by the operation of all the exciting powers and remedies. The force and facility of motion is one and the self same thing. We must judge from the reality and not from the appearance of things ; consequently, *Trembling Convulsions*, and every affection comprized under them are to be imputed to debility. The noxious power here exciting is a too violent stimulus for the part.

The magnitude of contraction, causing spasm, is not to be excepted. Which is

an action rather of continuance and deficient, than a great and just one. And how great soever the contraction is, it depends on a local stimulus of distention, or something tending to the same, and consists in a diminished excitement, is destitute of strength, and is removed by stimulant remedies. Behold the thing it self, and the true account of it !

The magnitude of contraction, in as much as it is an entire action, so it is joined with strength.* Hence the density of the contractile fibres, considered as simple solids, is certainly discovered to follow the measure of contraction.

Excitement therefore is the cause of density. The greater the excitement is the more encreased, it renders the same. This is evident from the highest degree of strength, and its correspondent density, that which is perceived in the hour of death, in death itself, and after death, in that debility corresponding with that laxity through all the middle degrees, if

I may

I may so call it. That the thing is so, is clear from the weakness of the same fibres, when dead, and from their strength when alive, of which difference excitement is certainly the sole cause.

Hence the cavities of the vessels throughout their various tracts in the system, decrease in the strong and rigid state, and in weakness and infirmity increase. This is the cause of suppressed or diminished perspiration.

The EFFECT of both DIATHESIS and of SOUND HEALTH itself.

THE common effect of the phlogistic noxious powers, in affecting the actions, is, first to encrease them, then partly to diminish them, but never by debilitating, and partly to disturb them. The effect of the asthenic is to diminish the said actions, but so that sometimes they falsely put on the appearance of encrease.

A just

A just excitement, if possible to be kept up continually, would make mankind enjoy perpetual health. But two things are hinderances to this, (viz.) For such is the force of a phlogistic diathesis; that, by consuming the sum of excitability given to each one, along with his existence sooner than common; it shortens life, often by the interposition of diseases, and brings on death sooner or later, according to its degree of magnitude. This is one cause of mans mortality.

An asthenic treatment is also hurtful, by not affording enough of excitement necessary for health; and thus inducing a state of debility bordering on death. This is the other road that leads to mortality. But to exchange diathesis, is also a means towards bringing on diseases, and death. Either diathesis, may be turned to its reverse by the application of the noxious powers, as remedies in too great a degree, whether by chance, or through men's inadvertence or design; by thus applying an opposite remedy the disease is
certain

certain to return to the point from whence it set off. This observation will be found of the greatest consequence in cure, as well of the predispositions, to diseases as of the diseases themselves. To illustrate which, a thing not foreign, to the subject; examples will be afterwards applied. An hydrothorax, or dropsy in the breast; following a peripneumony is an illustration of the change of a phlogistic into an asthenic diathesis. Thus again, by a too great use of stimulants to change an asthenic into a phlogistic affection, as to exchange the gout for a violent cough. Catarrh, Cynanche tonsillaris, &c. is the consequence of too great an application of proper remedies sometimes.

It is clear from what has been said, that life is a forced state, that animals at every moment are tending to dissolution; that they are guarded from this with difficulty, and only by other powers, but at last from necessity in part compelled to yield to death. Hence we can easily explain

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explain the curse first laid on man, "The day that thou shalt begin to live, on it thou shalt die." That is, without constant care, without labour and sweat of the brow, the exciting powers being either not at all or improperly applied, death will instantly surround him, &c.



END OF THE FIRST VOL.